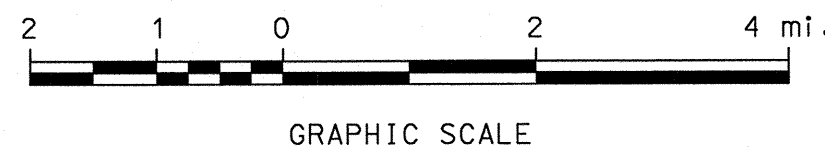


LOCATION MAP



INDEX OF SHEETS

- 1 FRONT SHEET
- 2-3 STANDARD SYMBOLS SHEETS
- 4-5 DETAILS
- 6 BRIDGE WETLAND IMPACTS PLAN
- 7-15 WETLAND IMPACT PLANS
- 16 EROSION CONTROL STRATEGIES
- 17-18 EROSION CONTROL DETAILS
- 19-28 EROSION CONTROL PLANS

HAMPTON FALLS RIVER BRIDGE  
NO. 194/059

WETLAND IMPACT  
PLAN SHEET 3

TAYLOR RIVER BRIDGE  
NO. 146/087

WETLAND IMPACT  
PLAN SHEET 4

WETLAND IMPACT  
PLAN SHEET 6

WETLAND IMPACT  
PLAN SHEET 9

STA. 2045+86, NB  
STA. 3036+80, SB  
END CONSTRUCTION

WETLAND IMPACT  
PLAN SHEET 7

WETLAND IMPACT  
PLAN SHEET 8

STA. 401+02  
LIMIT OF WORK

STA. 310+79  
LIMIT OF WORK

WETLAND IMPACT  
PLAN SHEET 6

STA. 510+08  
LIMIT OF WORK

WETLAND IMPACT  
PLAN SHEET 5

STA. 102+45  
BEGIN CONSTRUCTION

WETLAND IMPACT  
PLAN SHEET 9

STA. 102+20  
BEGIN APPROACH

STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION  
**WETLANDS PLANS**  
**FEDERAL AID PROJECT**

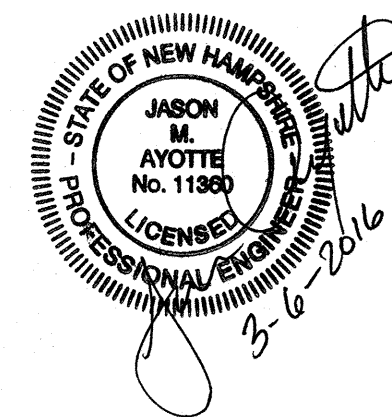
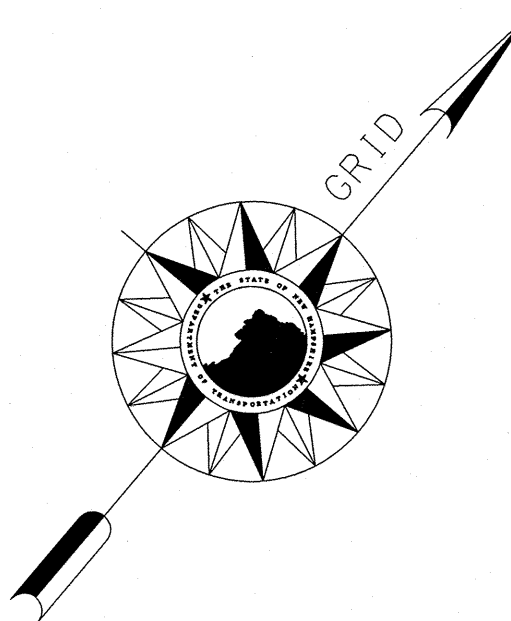
X-A004(397)  
N.H. PROJECT NO. 40424  
U.S. ROUTE 1

DESIGN DATA	
AVERAGE DAILY TRAFFIC 20 16	21000
AVERAGE DAILY TRAFFIC 20 36	N/A
PERCENT OF TRUCKS	N/A
DESIGN SPEED	35, 45 MPH
LENGTH OF PROJECT	3.4 MILES

TOWNS OF SEABROOK,  
HAMPTON FALLS & HAMPTON  
COUNTY OF ROCKINGHAM

SCALE: 1" = 600'

FOR CONSTRUCTION DETAILS - SEE CONSTRUCTION PLANS



Hoyle, Tanner  
& Associates, Inc.

**NHDOT** THE STATE OF  
NEW HAMPSHIRE  
DEPARTMENT OF  
TRANSPORTATION

RECOMMENDED FOR APPROVAL:

DIRECTOR OF PROJECT DEVELOPMENT DATE

MUNICIPAL HIGHWAYS ENGINEER  
BUREAU OF PLANNING AND COMMUNITY ASSISTANCE  
APPROVED: DATE

ASSISTANT COMMISSIONER AND CHIEF ENGINEER DATE

U. S. DEPARTMENT OF  
TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: DATE

DIVISION ADMINISTRATOR DATE

HTA PROJECT NO.	MODEL	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570.02	FSW	X-A004(397)	40424	1	28

3/20/16  
K000570\_09240241SS.dwg  
K000570\_09240241SS.dwg

SDR PROCESSED		DATE		REVISIONS AFTER PROPOSAL		DESCRIPTION
		2/2016		NUMBER	STATION	
		KDP				
		NEW DESIGN				
SHEET CHECKED		DATE				
		JMA	2/2016			
AS BUILT DETAILS		DATE				

GENERAL	
EDGE OF PAVEMENT TRAVELED WAY	<div><div>PROPOSED ROADWAY</div><div>existing roadway</div><div>(pavement removed outside slope lines)</div></div>
DRIVEWAYS	<div>(label surface type)</div>
BUILDINGS	<div><div>(label house or type of building)</div><div>(building to be removed)</div></div>
FOUNDATION	<div>(label type)</div>
LEACH FIELD	<div>leach field</div>
BRIDGE CROSSINGS	<div><div>STREAM</div><div>OVERPASS</div></div>
STEPS AND WALK	<div>(label type)</div>
INTERMITTENT WATER COURSE	
SHORE LINE	<div><div>river/stream</div><div>pond (label name of water body)</div></div>
POTENTIAL WET AREA SYMBOL	
BRUSH OR WOODS LINE	
TREES (PLANS)	<div><div>(deciduous)</div><div>(coniferous)</div><div>(stump)</div><div>(show station, circumference in feet &amp; type)</div></div>
TREE OR STUMP (CROSS-SECTIONS)	
HEDGE	<div>(label type)</div>
MONITORING WELL	<div>mon</div>
WELL	<div></div>
FLAG POLE	<div>fp</div>
ORIGINAL GROUND (TYPICALS)	
ROCK OUTCROP	
ROCK LINE (TYPICALS & SECTIONS ONLY)	
GUARDRAIL (label type)	<div><div>existing</div><div>PROPOSED</div><div>bgr</div><div>cgr</div></div>
JERSEY BARRIER	
CURB (LABEL TYPE)	
STONE WALL	
RETAINING WALL (LABEL TYPE)	<div>(points toward retained ground)</div>
FENCE (LABEL TYPE)	
SIGNS	<div><div>(single post)</div><div>(double post)</div></div>
GAS PUMP	<div>gp</div>
FUEL TANK (ABOVE GROUND)	<div>ft (label size &amp; type)</div>
STORAGE TANK FILLER CAP	<div>fc</div>
SEPTIC TANK	<div>s</div>
GRAVE	<div>gr</div>
MAILBOX	<div>mb</div>
VENT PIPE	<div>vp</div>
SATELLITE DISH ANTENNA	<div>da</div>
PHONE	<div>ph</div>
GROUND LIGHT/LAMP POST	<div>gl</div> <div>lp</div>
BORING LOCATION	<div>B</div>
TEST PIT	<div>TP</div>
INTERSTATE NUMBERED HIGHWAY	<div>293</div>
UNITED STATES NUMBERED HIGHWAY	<div>3</div>
STATE NUMBERED HIGHWAY	<div>102</div>

SHORELAND - WETLAND

WETLAND DESIGNATION AND TYPE	
DELINEATED WETLAND	<div><div>2</div><div>PUB2E</div></div>
ORDINARY HIGH WATER	<div>DW</div> <div>DW</div>
TOP OF BANK	<div>OH</div> <div>OH</div>
TOP OF BANK & ORDINARY HIGH WATER	<div>TOB</div> <div>TOB</div>
NORMAL HIGH WATER	<div>NHW</div> <div>NHW</div>
WIDTH AT BANK FULL	<div>WBF</div> <div>WBF</div>
PRIME WETLAND	<div>PWET</div> <div>PWET</div>
PRIME WETLAND 100' BUFFER	<div>PWET100</div> <div>PWET100</div>
NON-JURISDICTIONAL DRAINAGE AREA	<div>NJDA</div> <div>NJDA</div>
COWARDIN DISTINCTION LINE	<div>CDL</div> <div>CDL</div>
TIDAL BUFFER ZONE	<div>TBZ</div> <div>TBZ</div>
DEVELOPED TIDAL BUFFER ZONE	<div>DTBZ</div> <div>DTBZ</div>
HIGHEST OBSERVABLE TIDE LINE	<div>HOTL</div> <div>HOTL</div>
MEAN HIGH WATER	<div>MHW</div> <div>MHW</div> <div>MHW</div>
MEAN LOW WATER	<div>MLW</div> <div>MLW</div>
VERNAL POOL	<div>VP</div> <div>VP</div> <div>VP</div> <div>VP</div> <div>VP</div>
SPECIAL AQUATIC SITE	<div>SAS</div> <div>SAS</div> <div>SAS</div>
REFERENCE LINE	<div>REF</div> <div>REF</div> <div>REF</div>
WATER FRONT BUFFER	<div>WB50</div> <div>WB50</div>
NATURAL WOODLAND BUFFER	<div>NWB150</div> <div>NWB150</div>
PROTECTED SHORELAND	<div>PS250</div> <div>PS250</div>
INVASIVE SPECIES LABEL	<div><div>I.S.</div><div>I.S.</div></div>
INVASIVE SPECIES	<div>INV</div> <div>INV</div> <div>INV</div>

FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY	<div>FP500</div> <div>FP500</div>
100 YEAR FLOODPLAIN BOUNDARY	<div>FP100</div> <div>FP100</div>
FLOODWAY	<div>FW</div> <div>FW</div> <div>FW</div>

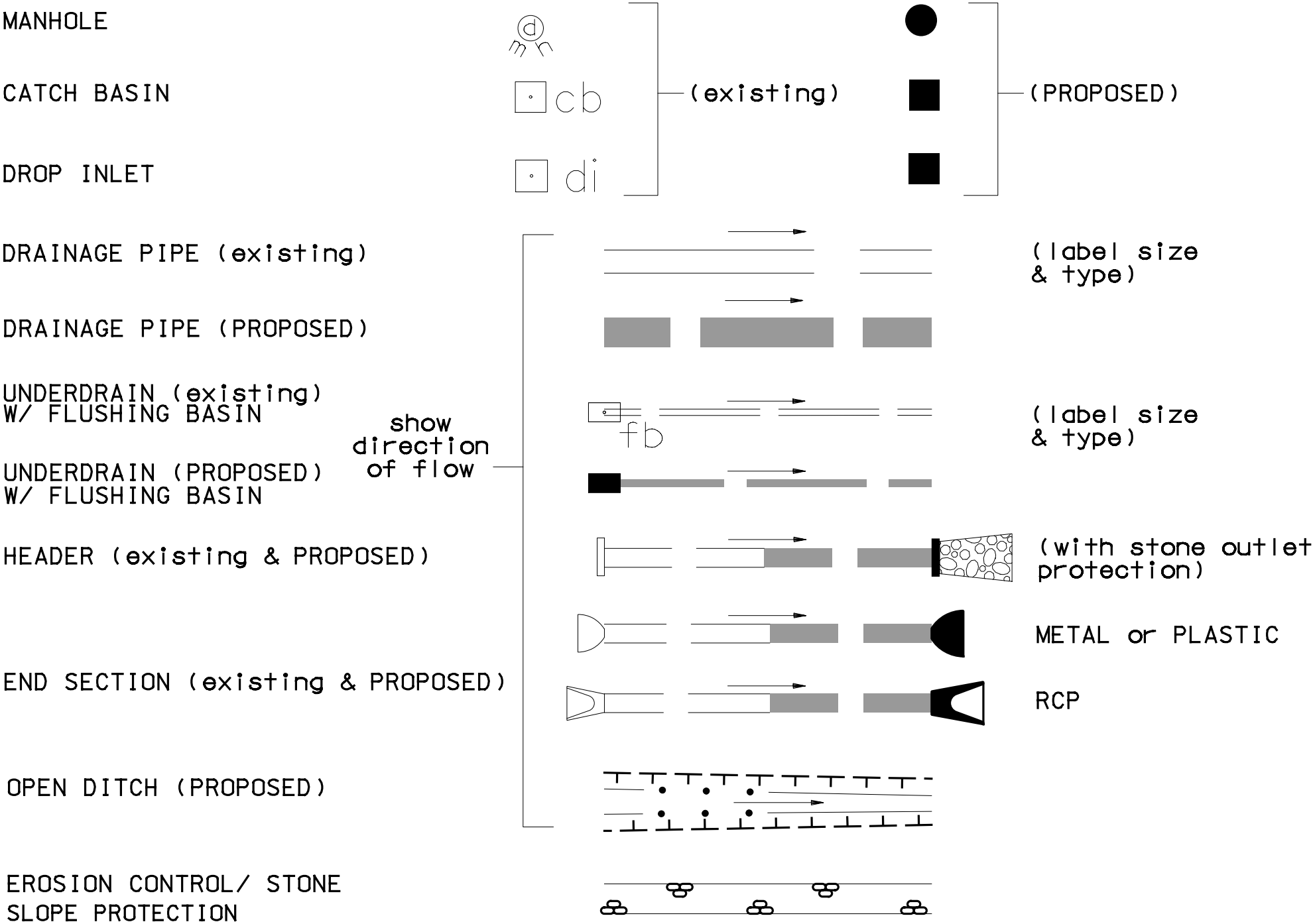
ENGINEERING

CONSTRUCTION BASELINE	<div>30</div> <div>31</div> <div>32</div>
PC, PT, POT (ON CONST BASELINE)	<div></div>
PI (IN CONSTRUCTION BASELINES)	<div></div>
INTERSECTION OR EQUATION OF TWO LINES	<div></div>
ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)	
PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)	
CLEARING LINE	<div>SLOPE LINE</div> <div>CLEARING LINE</div>
SLOPE LINE	
SLOPE LINE (FILL)	<div></div>
SLOPE LINE (CUT)	<div></div>
PROFILES AND CROSS SECTIONS:	
ORIGINAL GROUND ELEVATION (LEFT)	<div>72.5</div>
FINISHED GRADE ELEVATION (RIGHT)	<div>79.14</div>

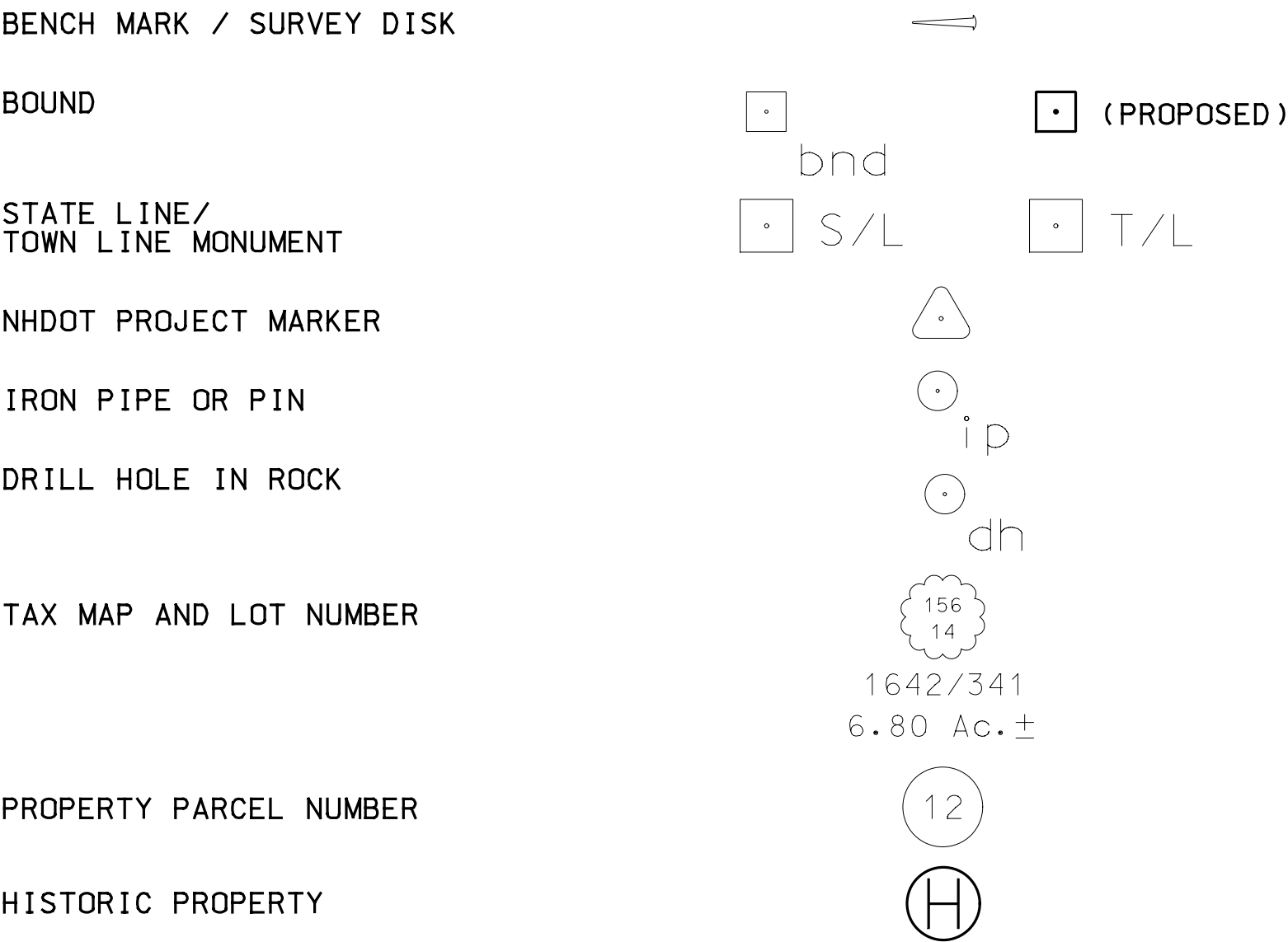
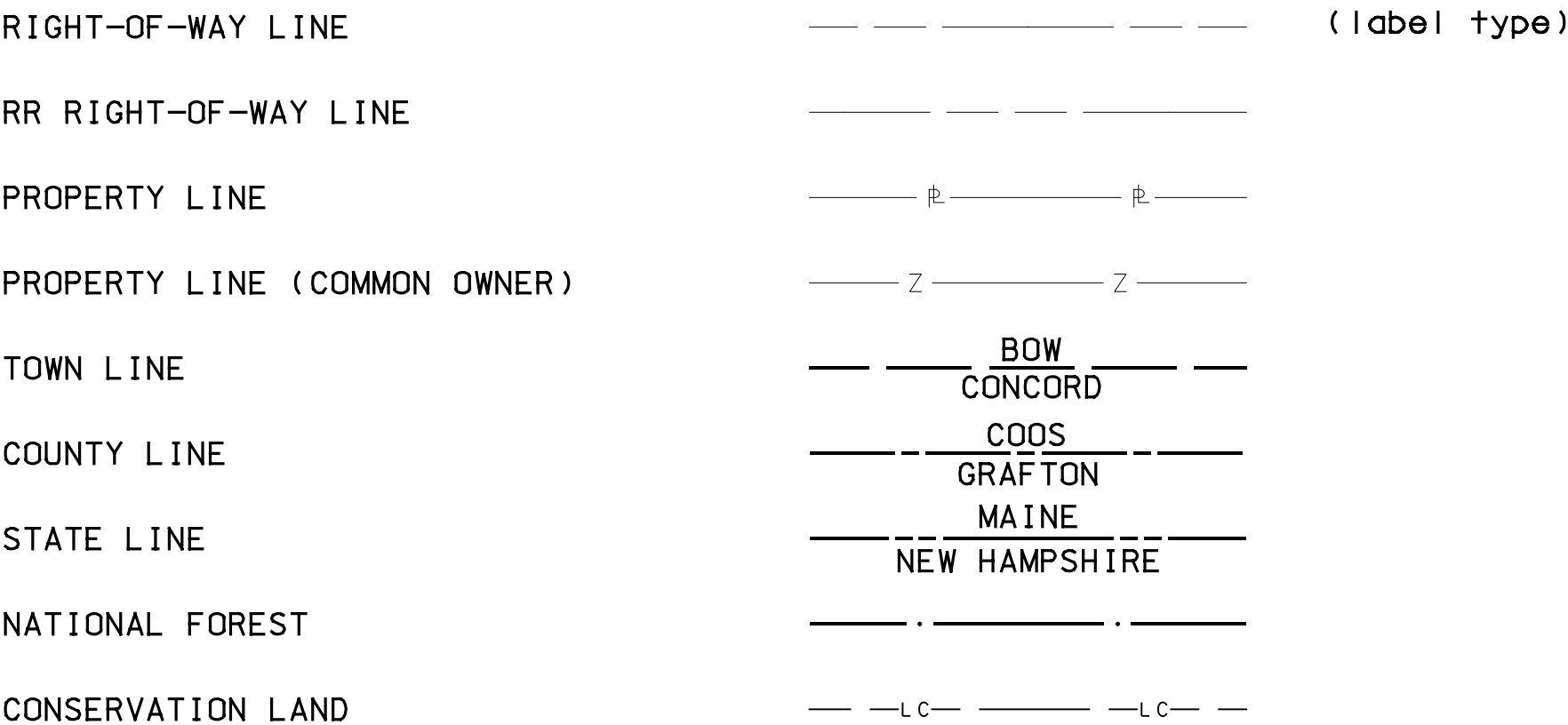
REVISION DATE		STATE OF NEW HAMPSHIRE			
11-21-2014		DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			
Hoyle, Tanner & Associates, Inc.		STANDARD SYMBOLS			
HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570-02	SYM01	404241SS	40424	2	28

REVISIONS AFTER PROPOSAL		STATION		STATION		DATE		NUMBER	
		DESCRIPTION							
SDR PROCESSED	KDP	DATE	2/2016	DATE	2/2016	DATE	2/2016	DATE	2/2016
NEW DESIGN	KDP	DATE	2/2016	DATE	2/2016	DATE	2/2016	DATE	2/2016
SHEET CHECKED	JMA	DATE	2/2016	DATE	2/2016	DATE	2/2016	DATE	2/2016
AS BUILT DETAILS									

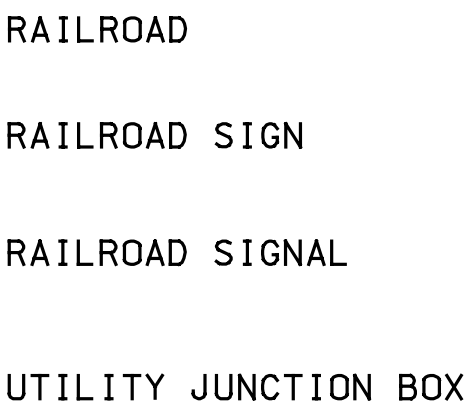
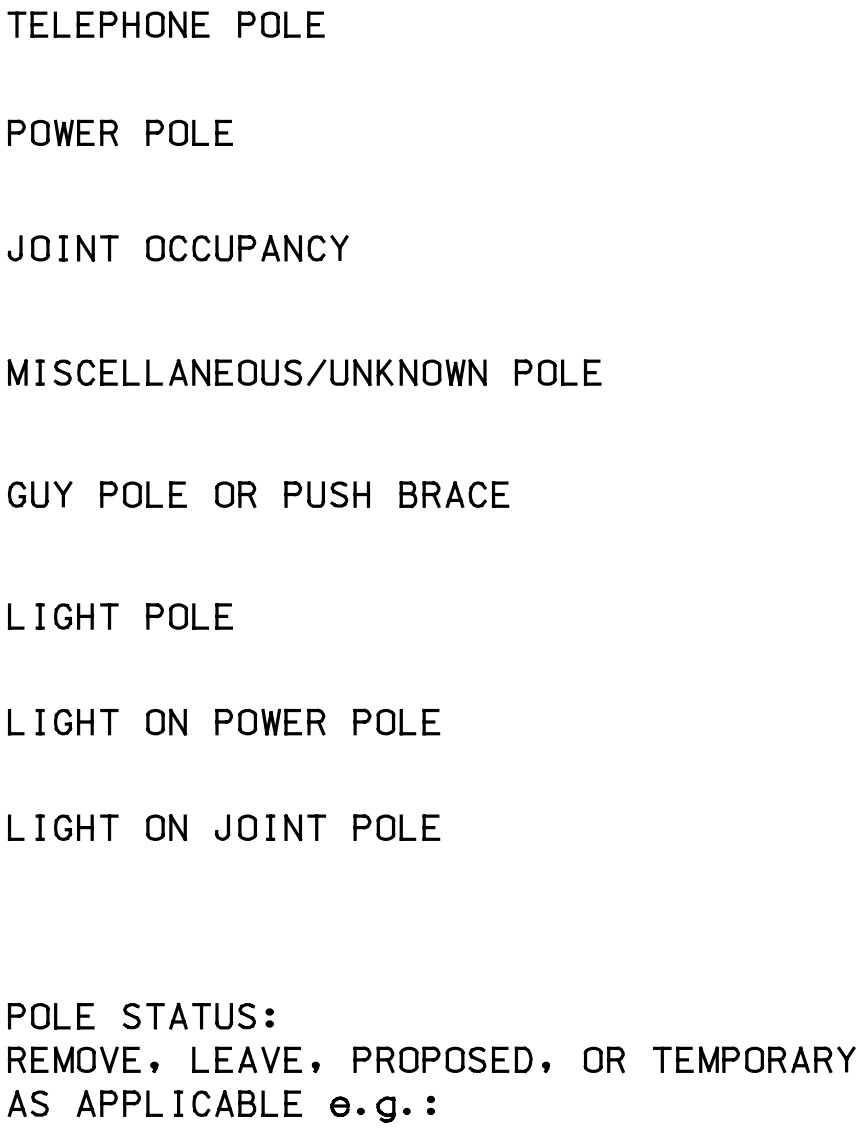
DRAINAGE



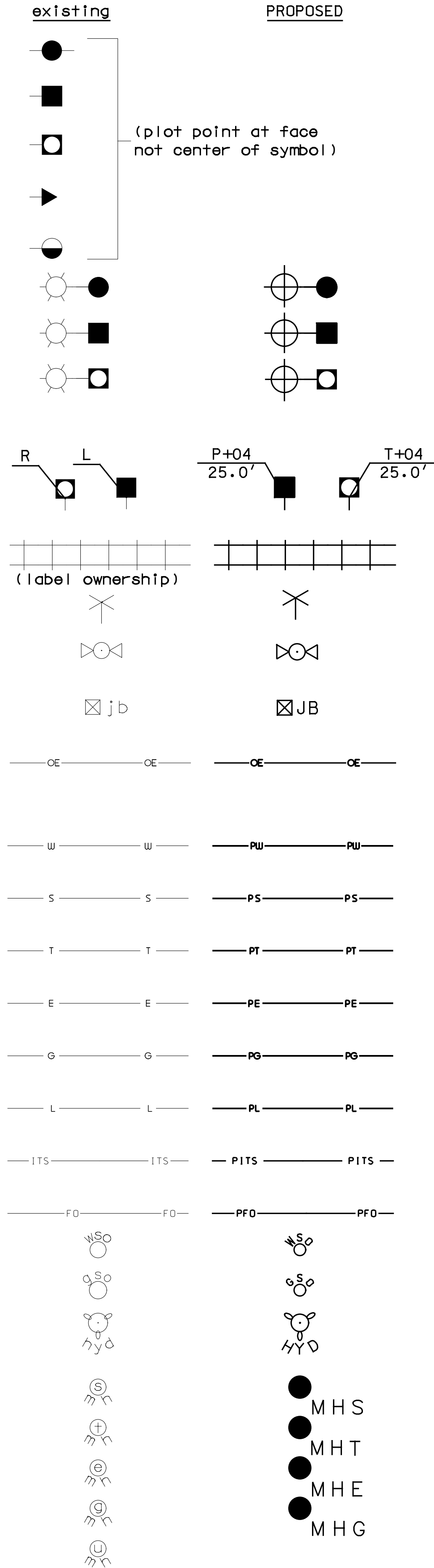
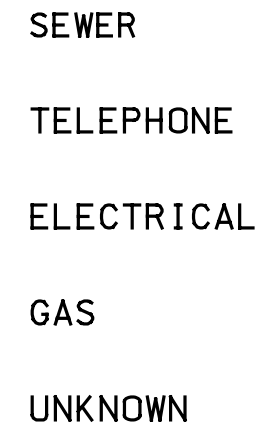
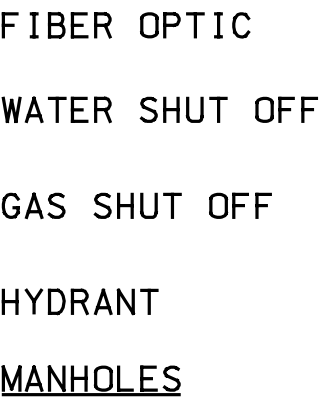
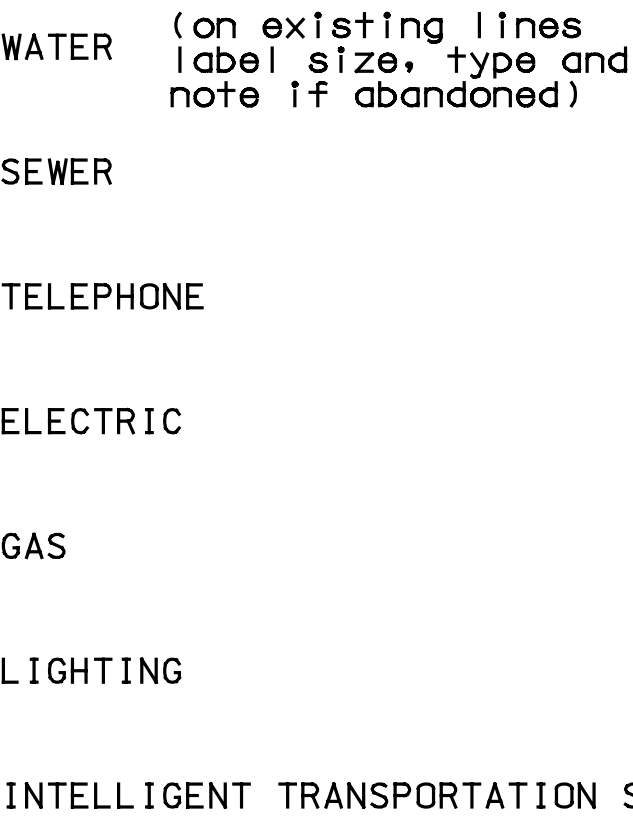
BOUNDARIES / RIGHT-OF-WAY



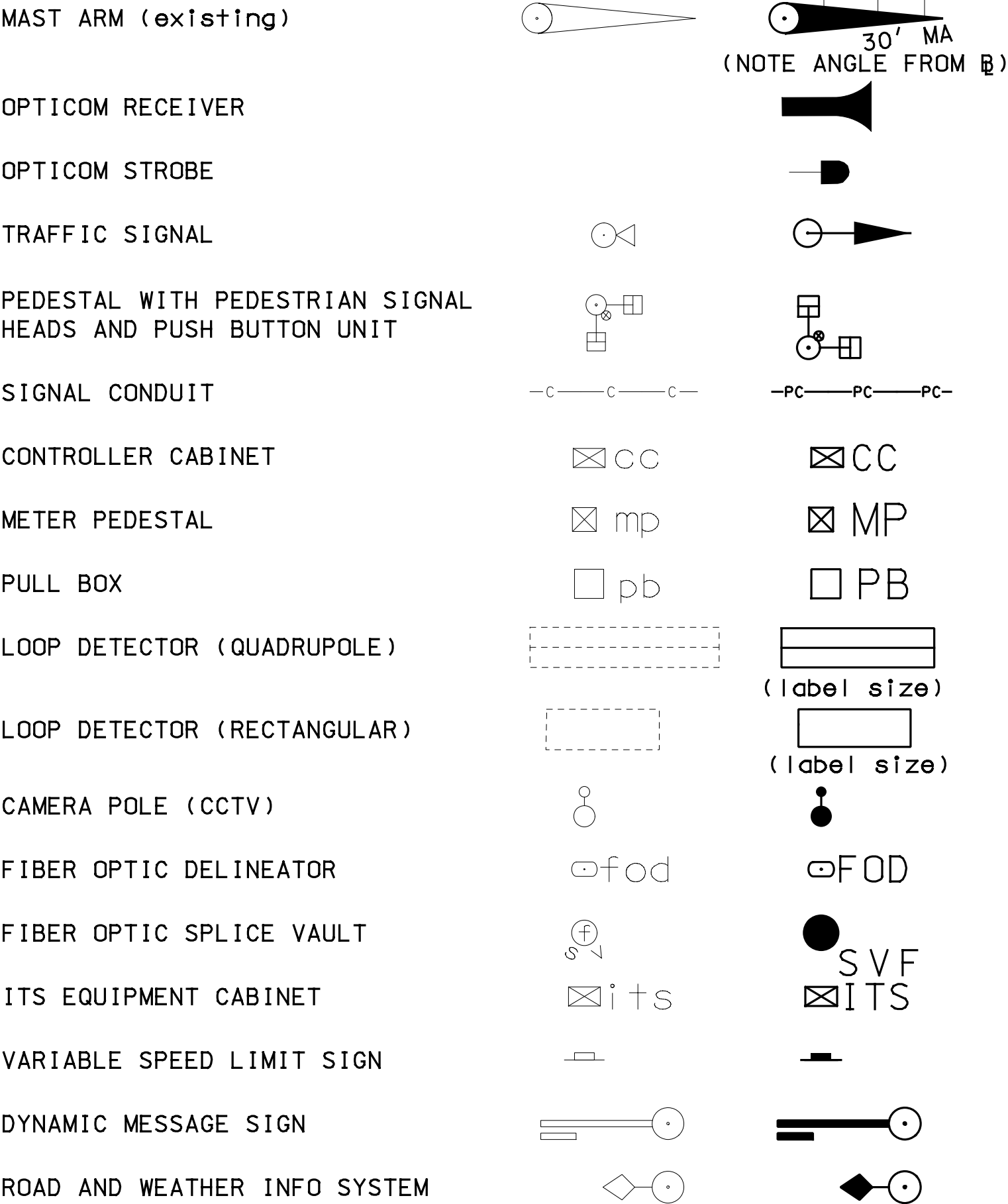
UTILITIES



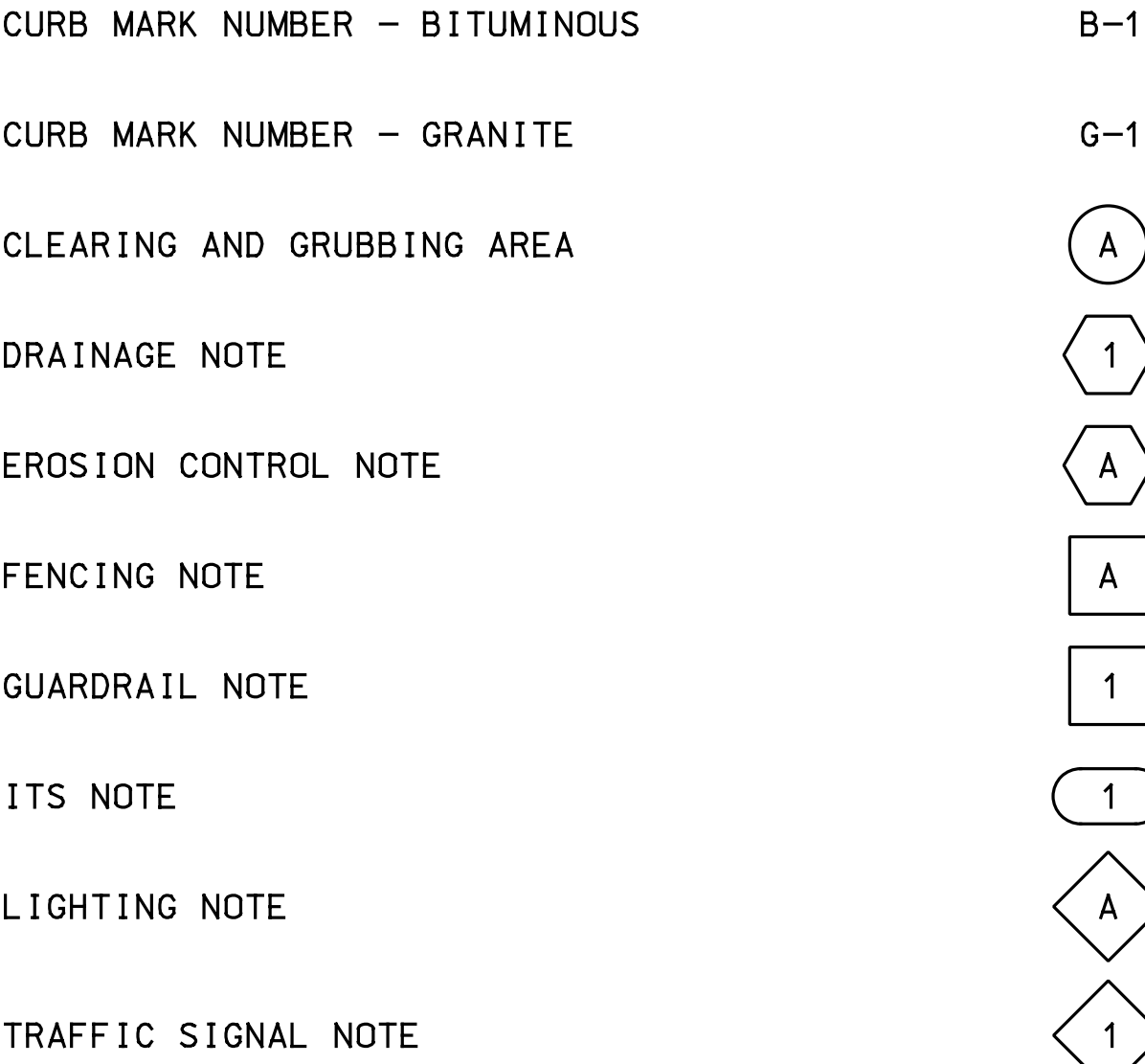
UNDERGROUND UTILITIES



TRAFFIC SIGNALS / ITS

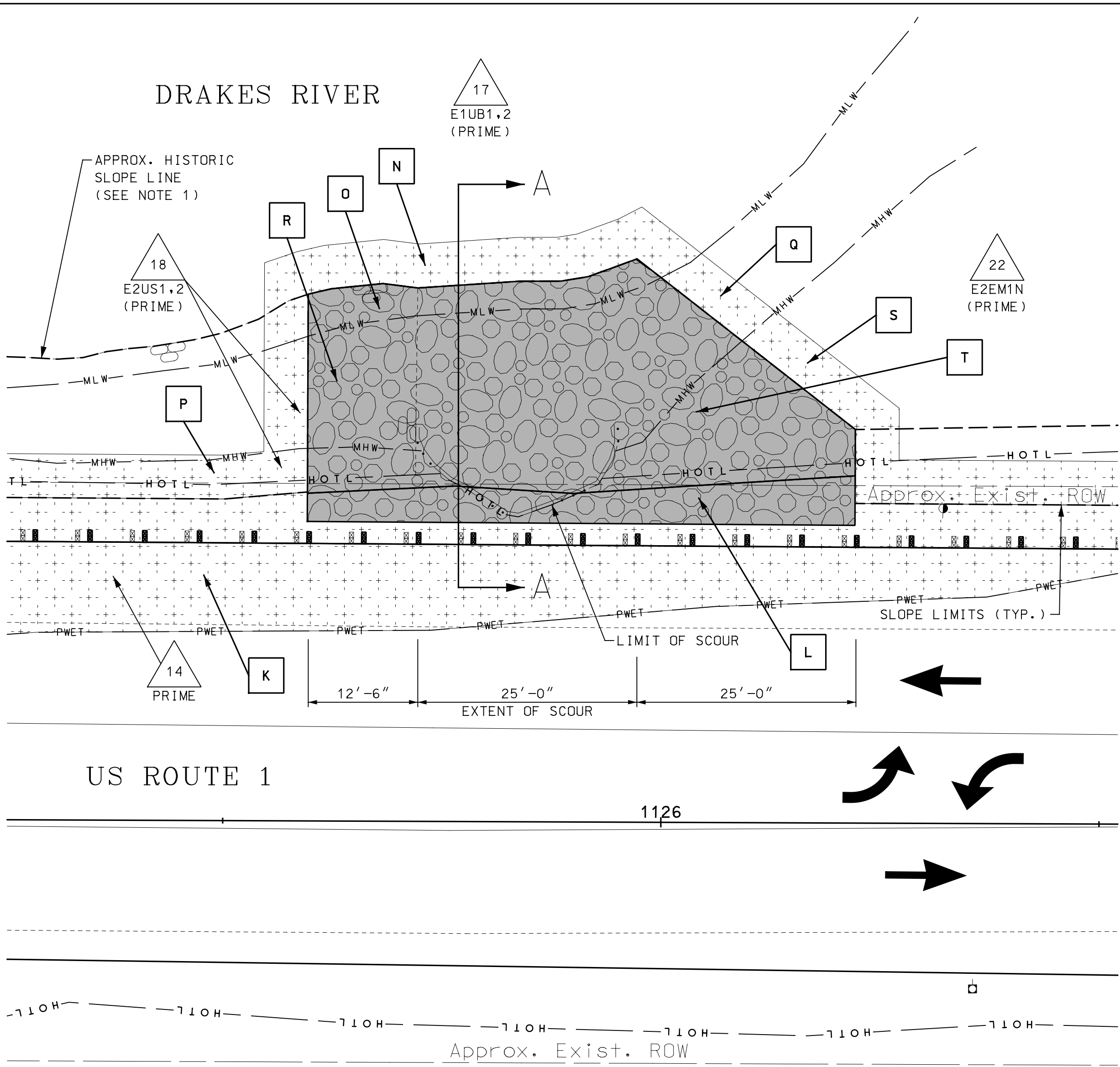


CONSTRUCTION NOTES

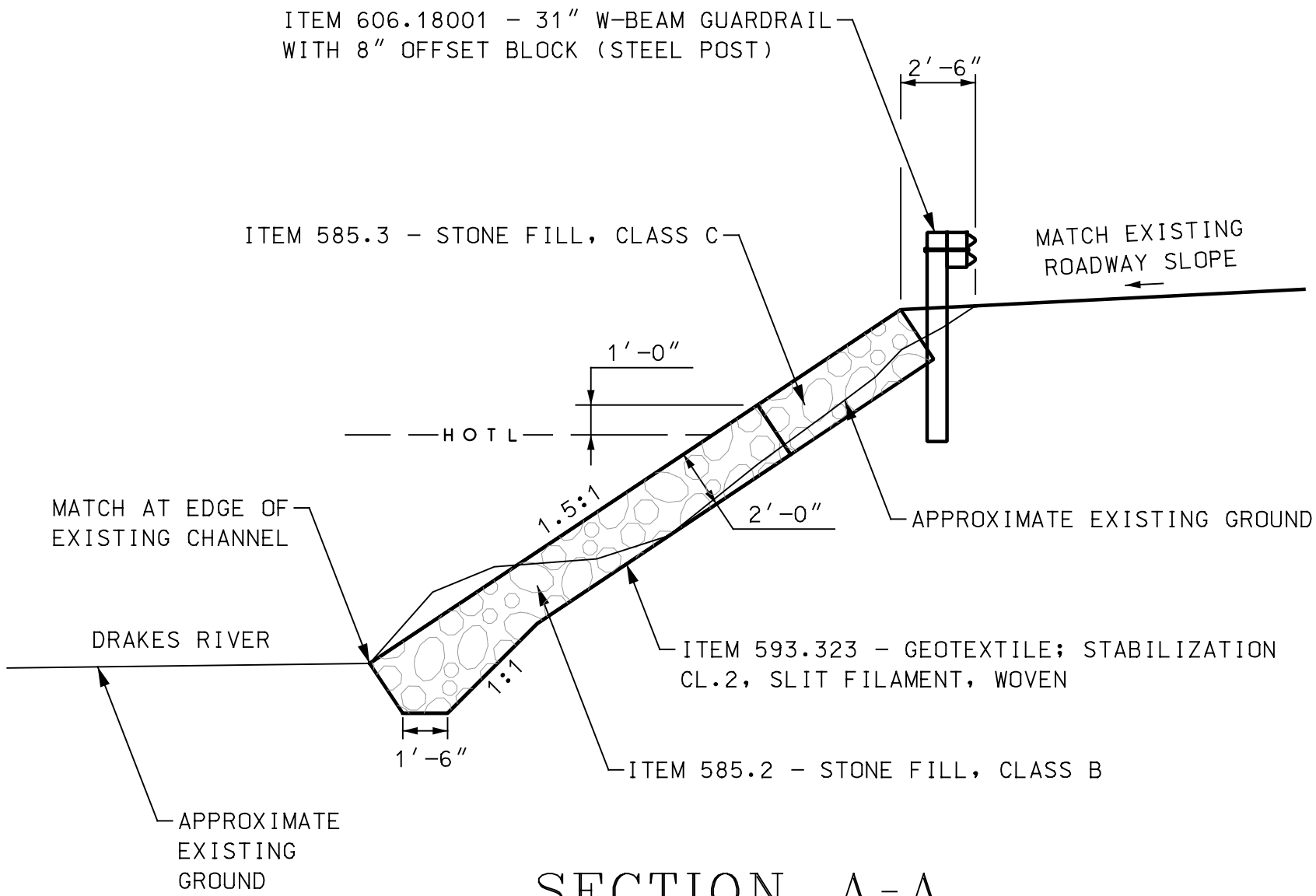


REVISION DATE 11-21-2014		STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			
Hoyle, Tanner & Associates, Inc.		STANDARD SYMBOLS			
HTA PROJECT NO. 092570.02	MODEL SYM02	DGN 404241SS	STATE PROJECT NO. 40424	SHEET NO. 3	TOTAL SHEETS 28

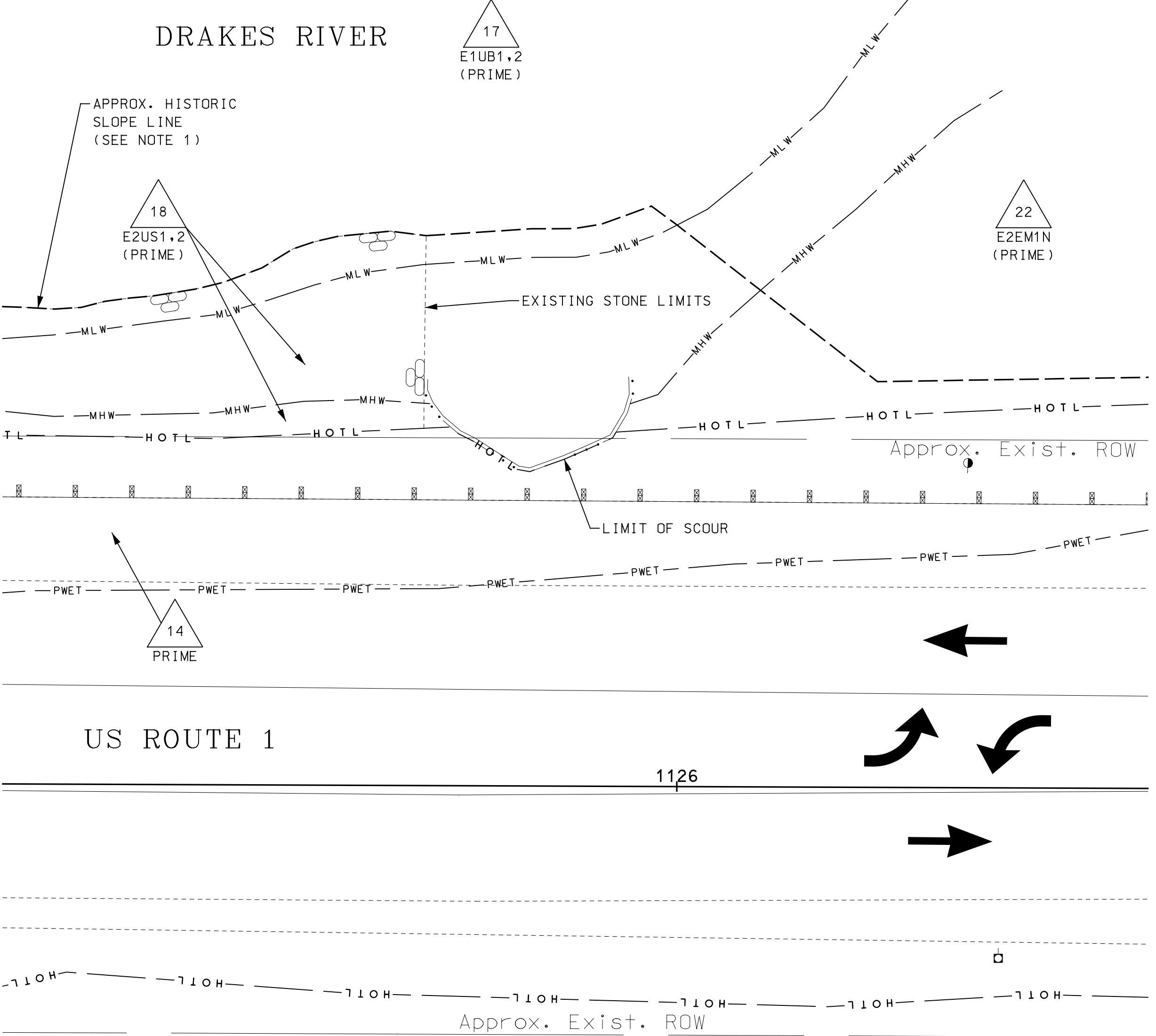
REVISIONS AFTER PROPOSAL		DESCRIPTION		STATION		DATE		NUMBER	
SDR PROCESSED	KDP	DATE	2/2016						
NEW DESIGN	KDP	DATE	2/2016						
SHEET CHECKED	JMA	DATE	2/2016						
AS BUILT DETAILS		DATE							



PLAN  
1" = 10'



SECTION A-A  
NOT TO SCALE



HISTORIC PLAN  
1" = 10'

- NOTES:
1. THE PROPOSED STONE SLOPE IS 1.5:1 AND FALLS WITHIN THE APPROXIMATE HISTORIC SLOPE LINE, AS SHOWN. THE PROPOSED SLOPE IS VARIABLE TO STABILIZE THE SLOPE AND MATCH EXISTING FEATURES TO MINIMIZE IMPACT WITHIN PREVIOUSLY DISTURBED WETLAND AREAS.
  2. CONTRACT ADMINISTRATOR SHALL CONTACT BUREAU OF ENVIRONMENT AND MATERIALS AND RESEARCH IF CONDITIONS ENCOUNTERED REQUIRE MODIFICATIONS TO SLOPE TREATMENT.

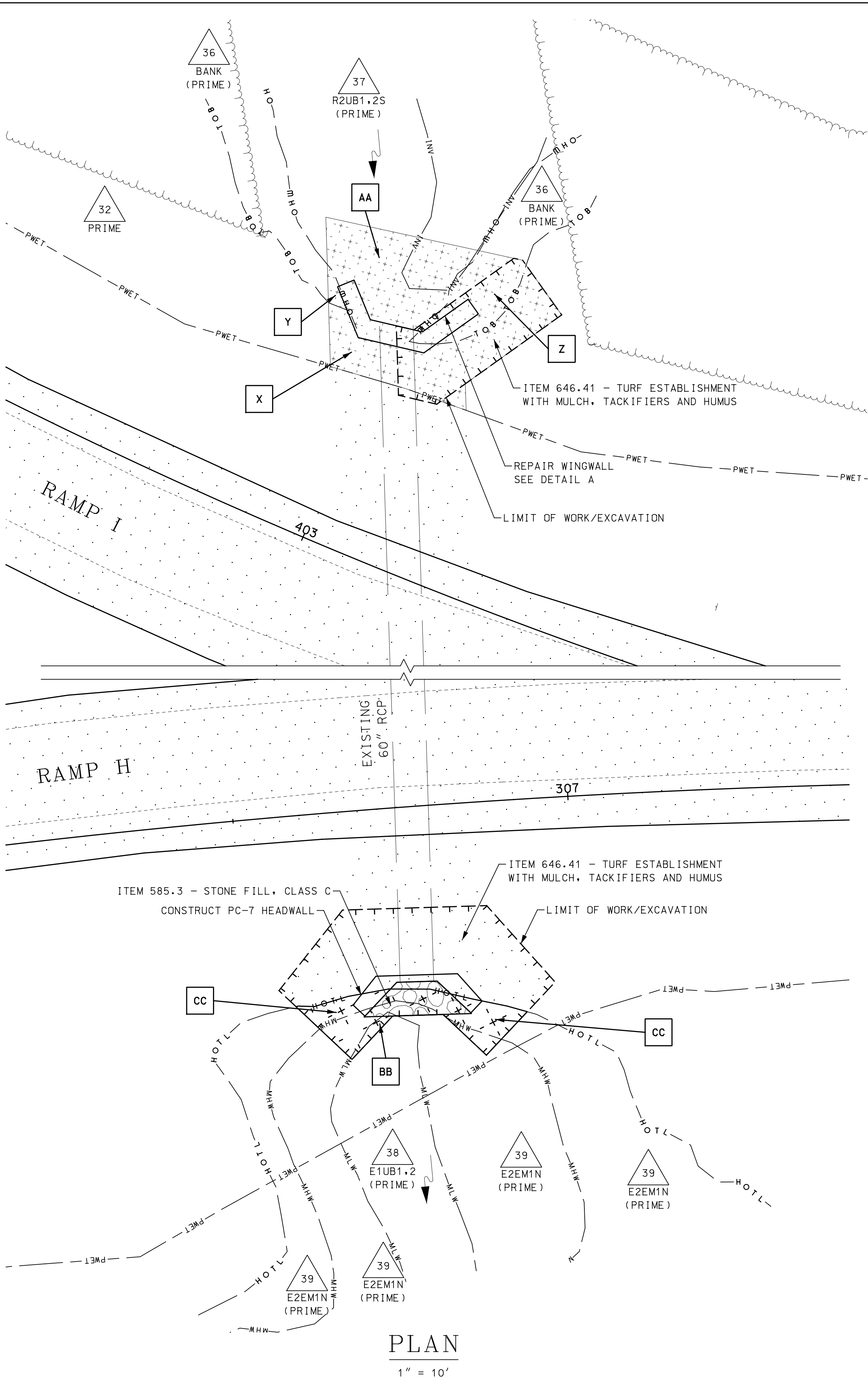
Hoyle, Tanner  
& Associates, Inc.

HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570.02	DTL08	40424DTL00	40424	4	28

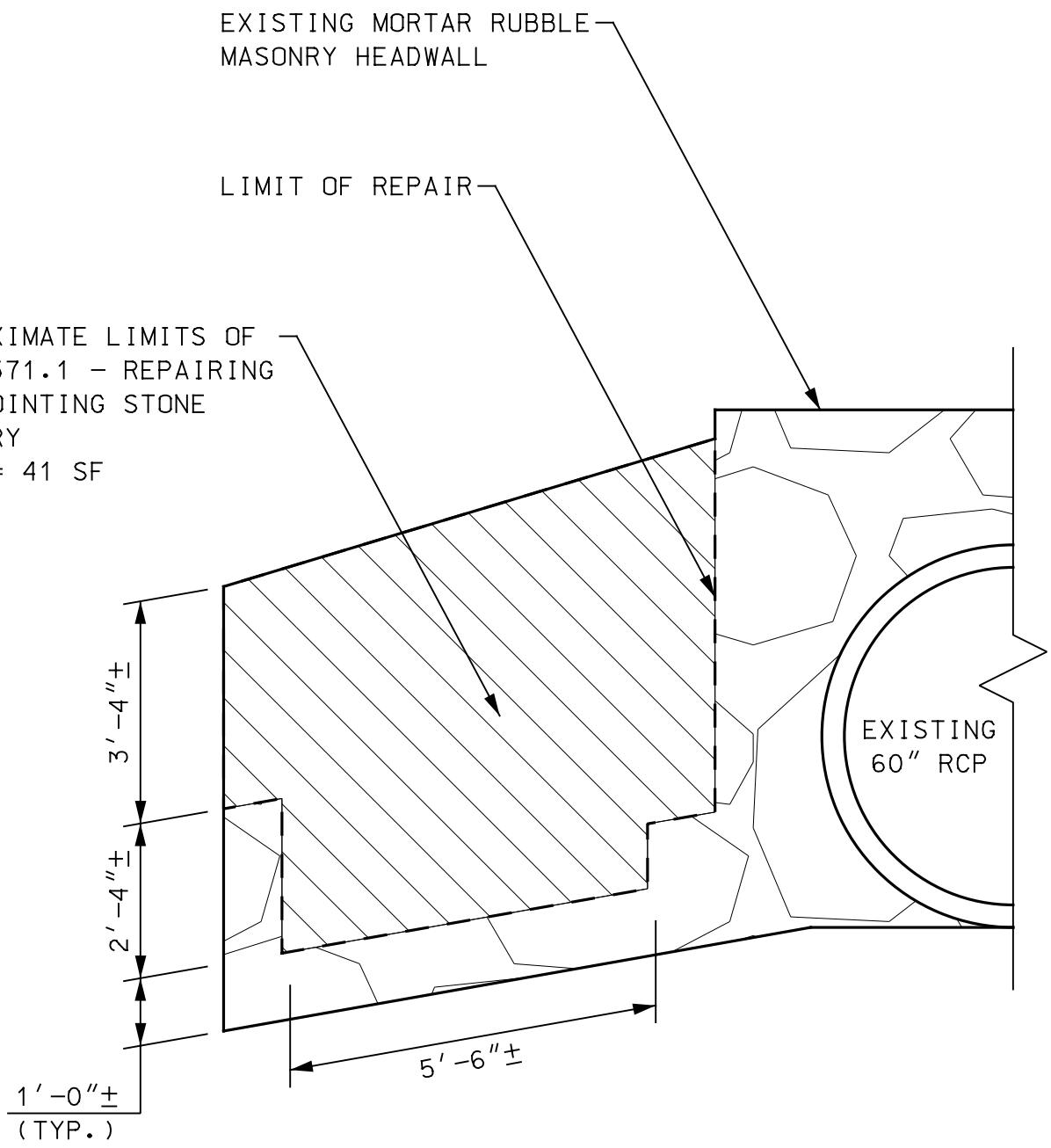
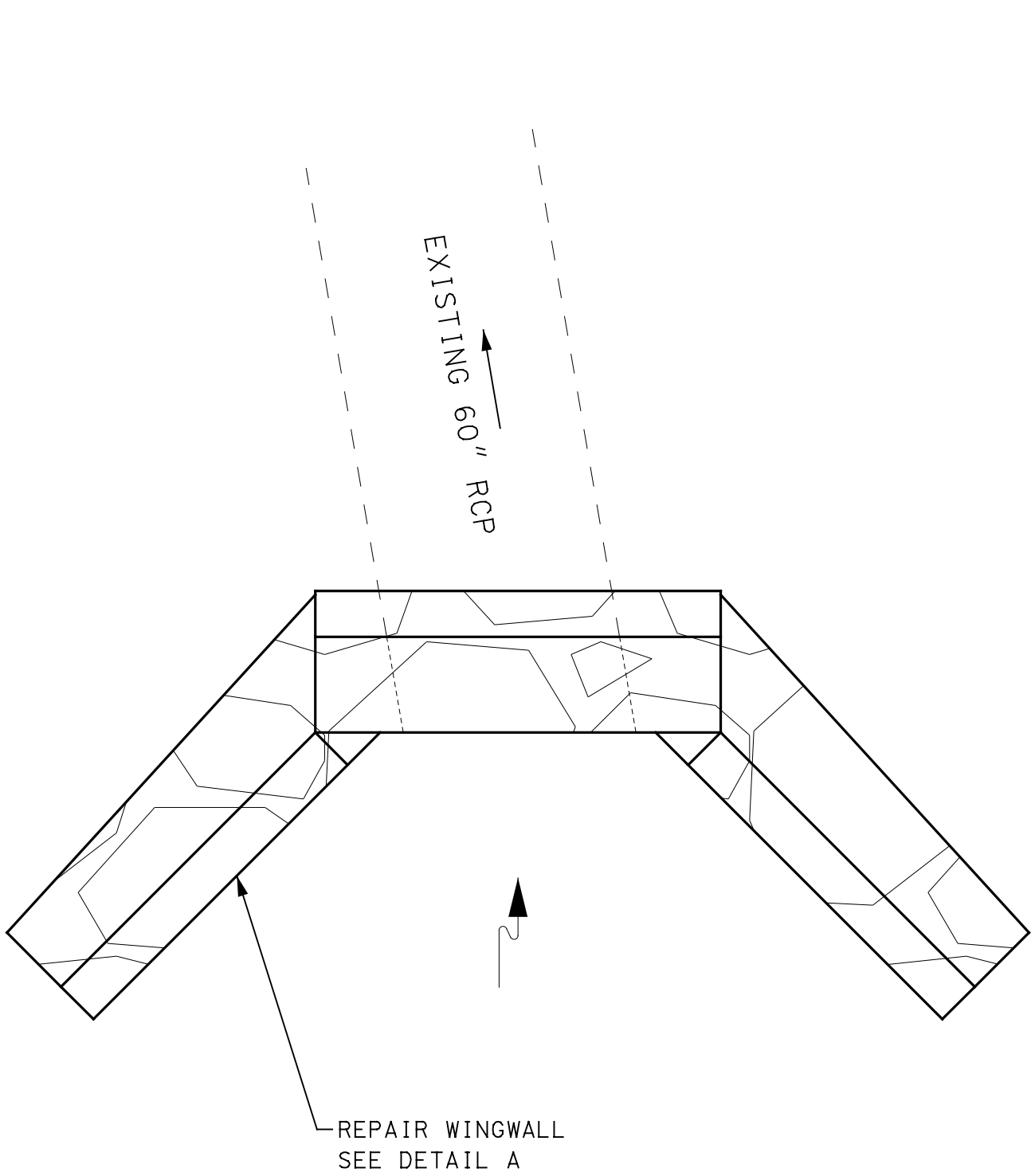
STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
SLOPE STABILIZATION DETAILS					



REVISIONS AFTER PROPOSAL		STATION		STATION		DATE		NUMBER	
SDR PROCESSED	KDP	DATE	2/2016	DATE	2/2016	DATE	2/2016	DATE	2/2016
NEW DESIGN	KDP	DATE	2/2016	DATE	2/2016	DATE	2/2016	DATE	2/2016
SHEET CHECKED	JMA	DATE	2/2016	DATE	2/2016	DATE	2/2016	DATE	2/2016
AS BUILT DETAILS									

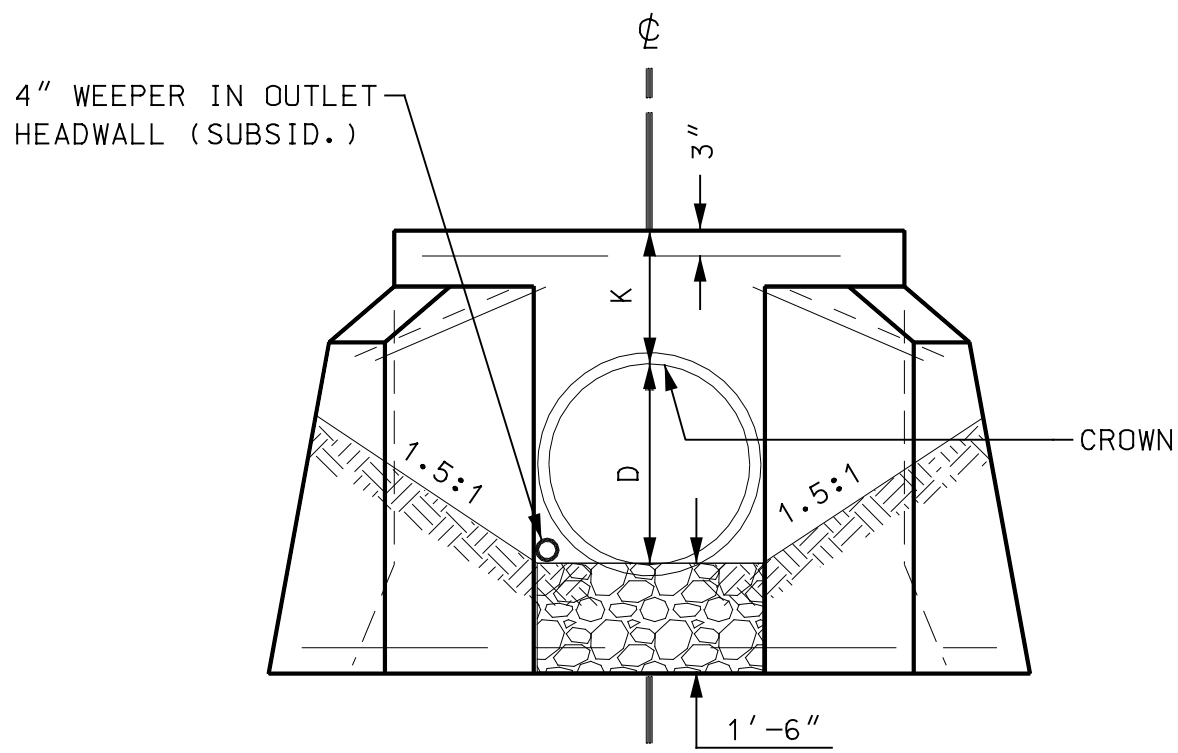


60" RCP DETAIL

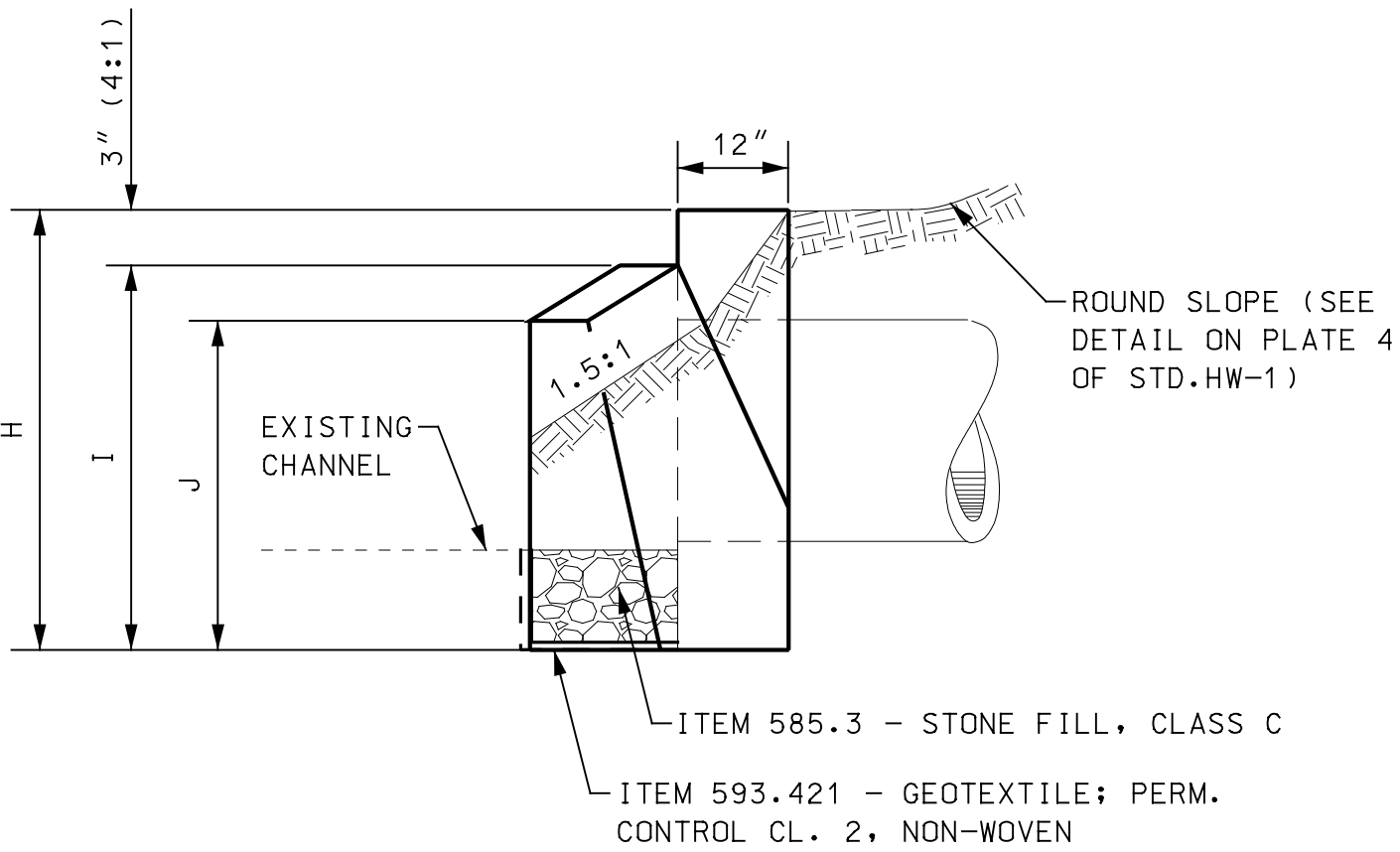


DETAIL A

INLET HEADWALL



END ELEVATION



SIDE ELEVATION

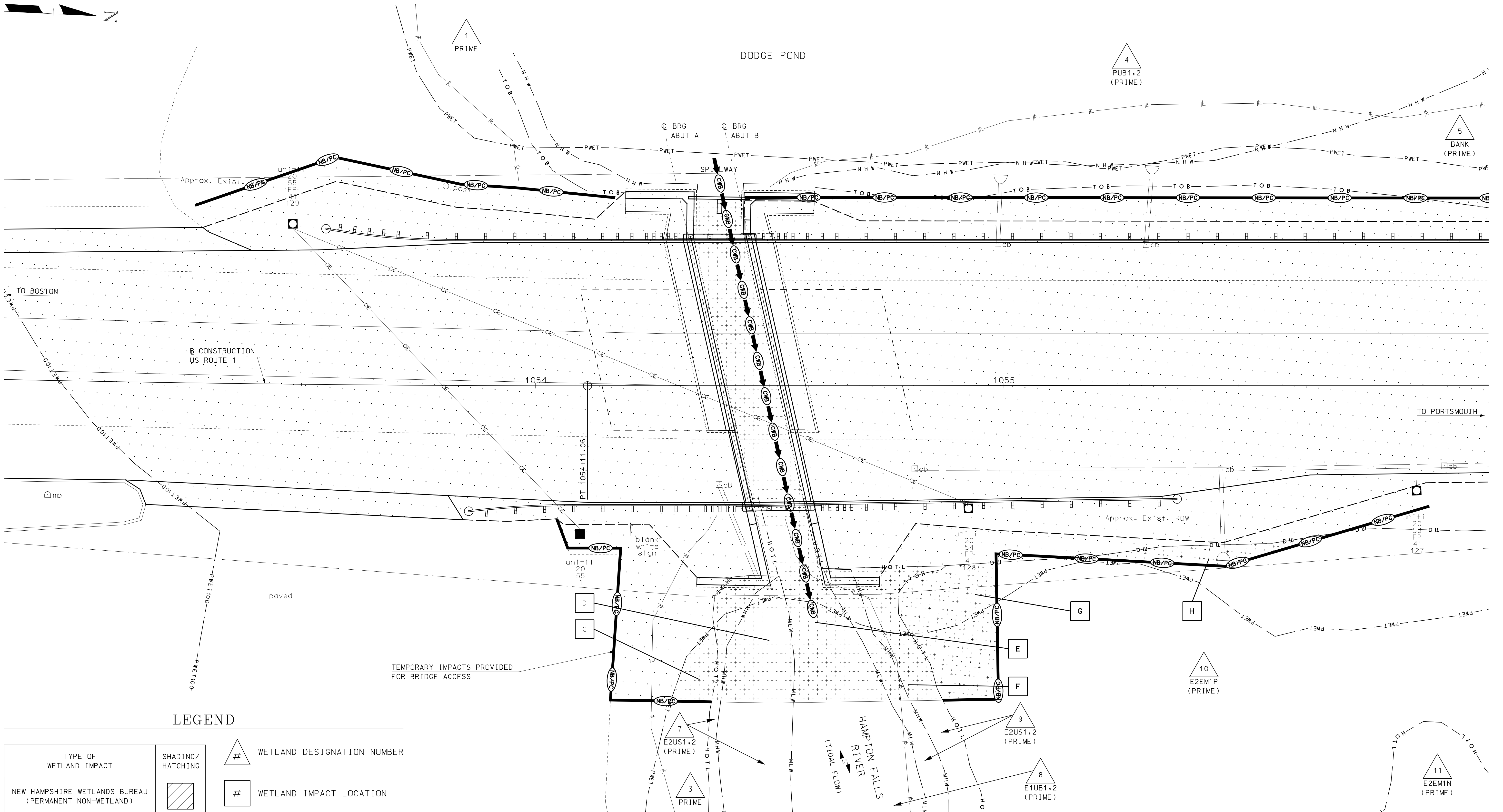
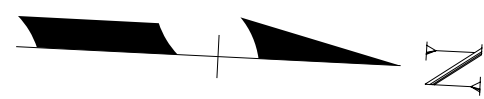
4:1 SLOPE													
DIAMETER D INCHES	QUANTITIES PER HEADER			DIMENSIONS									
	CONC. CU. YD.	STEEL LB.	EXC. FOR 1' DEPTH CU. YD.	A	B	C	E	F	G	H	I	J	K
60	10.35	194	4.29	6'-0"	8'-10"	12'-5"	8'-11"	2'-8"	7'-4"	8'-3"	8'-0"	6'-7"	1'-9"

PC-7 OUTLET HEADWALL

- NOTES:
1. DETAIL SHOWN FOR INFORMATION & PERMITTING PURPOSES.
  2. SEE NHDOT STANDARD PLAN NO. HW-2, PLATE 2 FOR 60" PC-7 REINFORCING STEEL SCHEDULE.

Hoyle, Tanner & Associates, Inc.

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
DRAINAGE DETAILS					
HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570.02	DTL09	40424DTL00	40424	5	28



PLAN  
SCALE: 1"=10'

### LEGEND

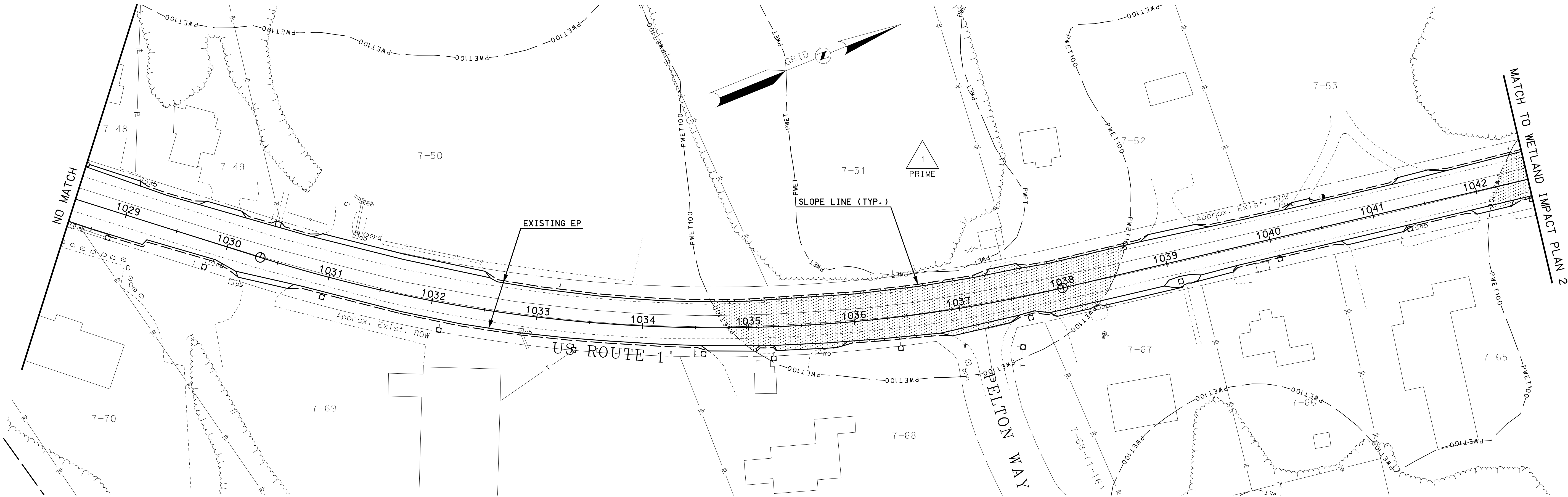
TYPE OF WETLAND IMPACT	SHADING/HATCHING	#	WETLAND DESIGNATION NUMBER
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)		#	WETLAND IMPACT LOCATION
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)		#	WETLAND MITIGATION AREA
TEMPORARY IMPACTS			MITIGATION
PRIME WETLANDS BUFFER IMPACT			

**Hoyle, Tanner & Associates, Inc.**

HTA PROJECT NO.	MODEL
092579	4042Wetplan194_059
SUBDIRECTORY	.DGN LOCATOR
XX	40424Wetplan194_059
	SHEET SCALE
	AS SHOWN

STATE OF NEW HAMPSHIRE											
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN											
TOWN	HAMPTON FALLS			BRIDGE NOS.		194/059		STATE PROJECT	40424		
LOCATION US ROUTE 1 OVER HAMPTON FALLS RIVER											
BRIDGE WETLAND IMPACTS PLAN									BRIDGE SHEET		
REVISIONS AFTER PROPOSAL				BY		DATE		BY		DATE	
				DESIGNED		PBD	12/15	CHECKED		EGW	12/15
				DRAWN		PBD	12/15	CHECKED		EGW	12/15
				QUANTITIES				CHECKED			
				ISSUE DATE				FEDERAL PROJECT NO.		SHEET NO.	
				REV. DATE				X-A004(397)		6	
										TOTAL SHEETS	
										28	

REVISIONS AFTER PROPOSAL			DESCRIPTION		
NUMBER	DATE	STATION	STATION	STATION	STATION
SDR PROCESSED	KDP	2/2016			
NEW DESIGN	KDP	2/2016			
SHEET CHECKED	JMA	2/2016			
AS BUILT DETAILS					



LEGEND	
TYPE OF WETLAND IMPACT	SHADING/HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS	
PRIME WETLANDS BUFFER IMPACT	
#	WETLAND DESIGNATION NUMBER
#	WETLAND IMPACT LOCATION
#	WETLAND MITIGATION AREA
	MITIGATION

WETLAND IMPACT SUMMARY					
WETLAND NUMBER	WETLAND CLASSIFICATION	LOCATION	AREA		
			PERMANENT IMPACTS		TEMPORARY IMPACTS
			N.H.W.B. (NON-WETLAND)	N.H.W.B. & A.C.O.E. (WETLAND)	
			SF	SF	SF
1	PRIME	A			280
5	BANK (PRIME)	B			642
3	PRIME	C			98
7	E2US1.2 (PRIME)	D			427
8	E1UB1.2 (PRIME)	E			1,336
9	E2US1.2 (PRIME)	F			370
10	E2EM1P (PRIME)	G			491
10	E2EM1P (PRIME)	H			134
14	PRIME	I			64
14	PRIME	J			234
14	PRIME	K			11,314
14	PRIME	L		307	
14	PRIME	M		575	
17	E1UB1.2 (PRIME)	N			274
17	E1UB1.2 (PRIME)	O		139	

WETLAND IMPACT SUMMARY					
WETLAND NUMBER	WETLAND CLASSIFICATION	LOCATION	AREA		
			PERMANENT IMPACTS		TEMPORARY IMPACTS
			N.H.W.B. (NON-WETLAND)	N.H.W.B. & A.C.O.E. (WETLAND)	
			SF	SF	SF
18	E2US1.2 (PRIME)	P			817
18	E2US1.2 (PRIME)	Q			56
18	E2US1.2 (PRIME)	R		858	
22	E2EM1N (PRIME)	S			111
22	E2EM1N (PRIME)	T		242	
26	PEM1B	U			109
28	PRIME	V			179
28	PRIME	W		7	
32	PRIME	X			255
34	BANK (PRIME)	Y			11
34	BANK (PRIME)	Z			121
35	R2UB1.2S (PRIME)	AA			259
36	E1UB1.2 (PRIME)	BB			10
37	E2EM1N (PRIME)	CC			160

GENERAL NOTES:

- DETAIL ON THIS PLAN WAS DERIVED FROM AS-BUILT PLANS (1962) AND AERIAL PHOTOGRAPHY WHICH MAY NOT BE REPRESENTATIVE OF CURRENT CONDITIONS. THESE PLANS SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
- PRIME WETLAND AND BUFFER ZONES ARE RECENT MAPPING PROVIDED BY NHDES ON FEBRUARY, 2016. ALL OTHER WETLAND DELINEATIONS WERE MAPPED BY THE DEPARTMENT ON DECEMBER, 2015 UNLESS NOTED.
- PERMANENT IMPACTS INCLUDE NEW TERMINAL UNITS AND GRADING, SLOPE STABILIZATION, AND SLOPE GRADING BEYOND CONSTRUCTION WORK REQUIRED FOR GUARDRAIL REPLACEMENTS, PAVEMENT OVERLAY, AND THE SHOULDER LEVELING. TEMPORARY IMPACTS INCLUDE PAVEMENT OVERLAY, SHOULDER LEVELING, GUARDRAIL REPLACEMENT, AND ALL OTHER INCIDENTAL ROADWAY ADJUSTMENTS.
- SEE EROSION CONTROL PLANS FOR LIMIT OF EROSION CONTROL STRATEGIES.
- PROPOSED WORK CONSISTS OF 3/4" PAVEMENT OVERLAY ON THIS SHEET.

PERMANENT IMPACTS: 2,128 SF  
TEMPORARY IMPACTS: 17,752 SF

TOTAL IMPACTS: 19,880 SF

PERMANENT IMPACTS TO PRIME WETLAND BUFFER:  
UNDISTURBED BUFFER: 0 SF  
DISTURBED BUFFER: 23,517 SF

TEMPORARY IMPACTS TO PRIME WETLAND BUFFER:  
UNDISTURBED BUFFER: 0 SF  
DISTURBED BUFFER: 407,887 SF

PERMANENT IMPACTS TO NON-PRIME WETLAND BUFFER TBZ:  
UNDISTURBED TBZ: 0 SF  
DISTURBED TBZ: 23 SF

TEMPORARY IMPACTS TO NON-PRIME WETLAND BUFFER TBZ:  
UNDISTURBED TBZ: 0 SF  
DISTURBED TBZ: 1,217 SF

WETLAND CLASSIFICATION CODES	
E1UB1.2	ESTUARINE SUBTIDAL UNCONSOLIDATED BOTTOM COBBLE GRAVEL, SAND
E2US1.2	ESTUARINE INTERTIDAL UNCONSOLIDATED SHORE COBBLE GRAVEL, SAND
E2EM1N	ESTUARINE INTERTIDAL EMERGENT PERSISTENT REGULARLY FLOODED
E2EM1P	ESTUARINE INTERTIDAL EMERGENT PERSISTENT IRREGULARLY FLOODED
PEM1B	PALUSTRINE EMERGENT PERSISTENT SATURATED
R2UB1.2S	RIVERINE LOWER PERENNIAL UNCONSOLIDATED BOTTOM COBBLE-GRAVEL/SAND TEMPORARY-TIDAL



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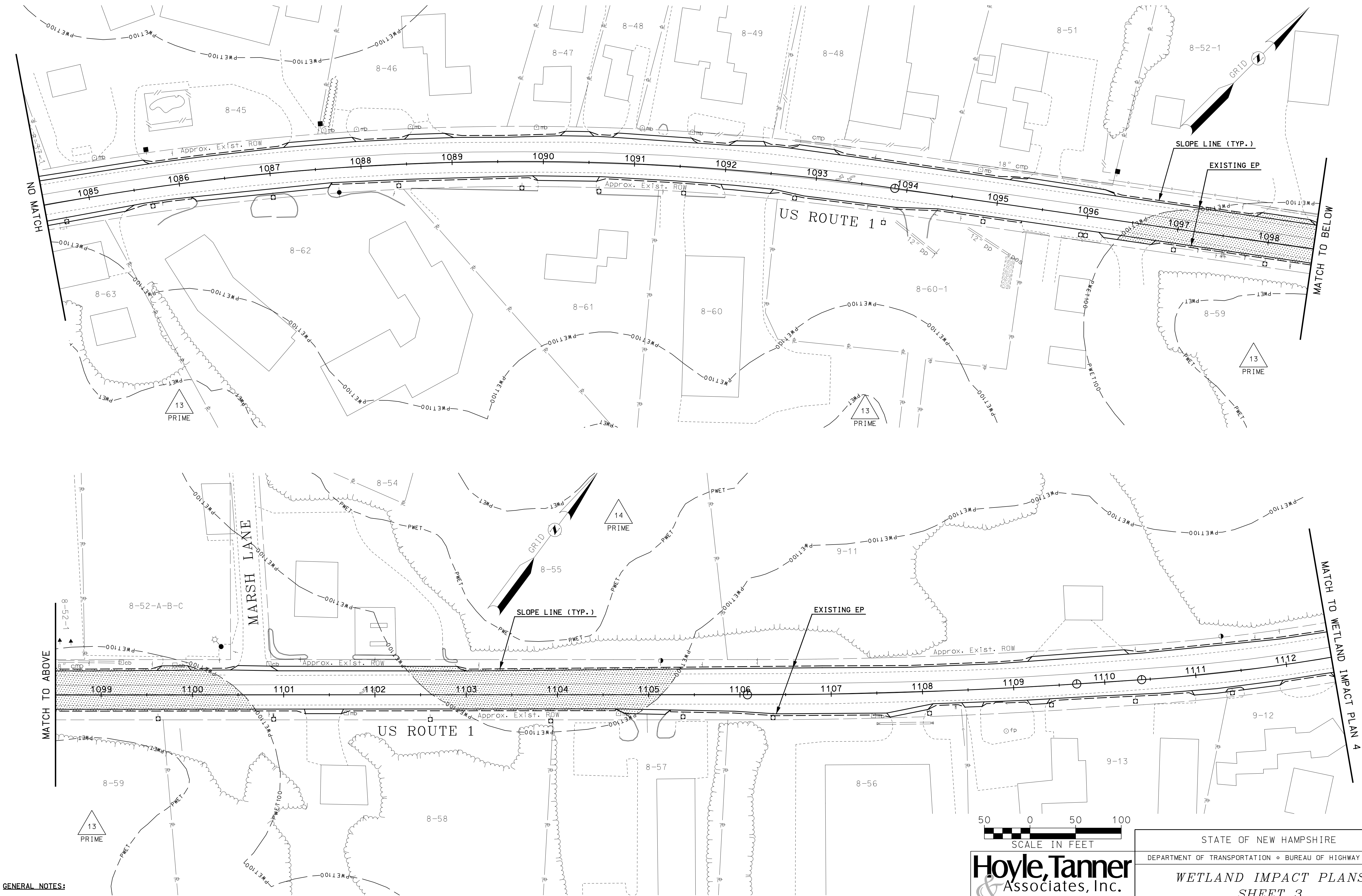
STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
WETLAND IMPACT PLANS					
SHEET 1					
HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570.02	WET01	40424wetplans	40424	7	28



SDR PROCESSED		KDP	DATE	REVISIONS AFTER PROPOSAL			DESCRIPTION
NEW DESIGN		KDP	DATE	NUMBER	DATE	STATION	
SHEET CHECKED		JMA	DATE	2/2016			
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REVISIONS AFTER PROPOSAL				DESCRIPTION			
NUMBER	DATE	STATION	STATION	STATION	STATION	STATION	STATION
SDR PROCESSED	KDP	DATE	2/2016				
NEW DESIGN	KDP	DATE	2/2016				
SHEET CHECKED	JMA	DATE	2/2016				
AS BUILT DETAILS				DATE			



GENERAL NOTES:

1. PROPOSED WORK CONSISTS OF 3/4" PAVEMENT OVERLAY ON THIS SHEET.

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SCALE IN FEET

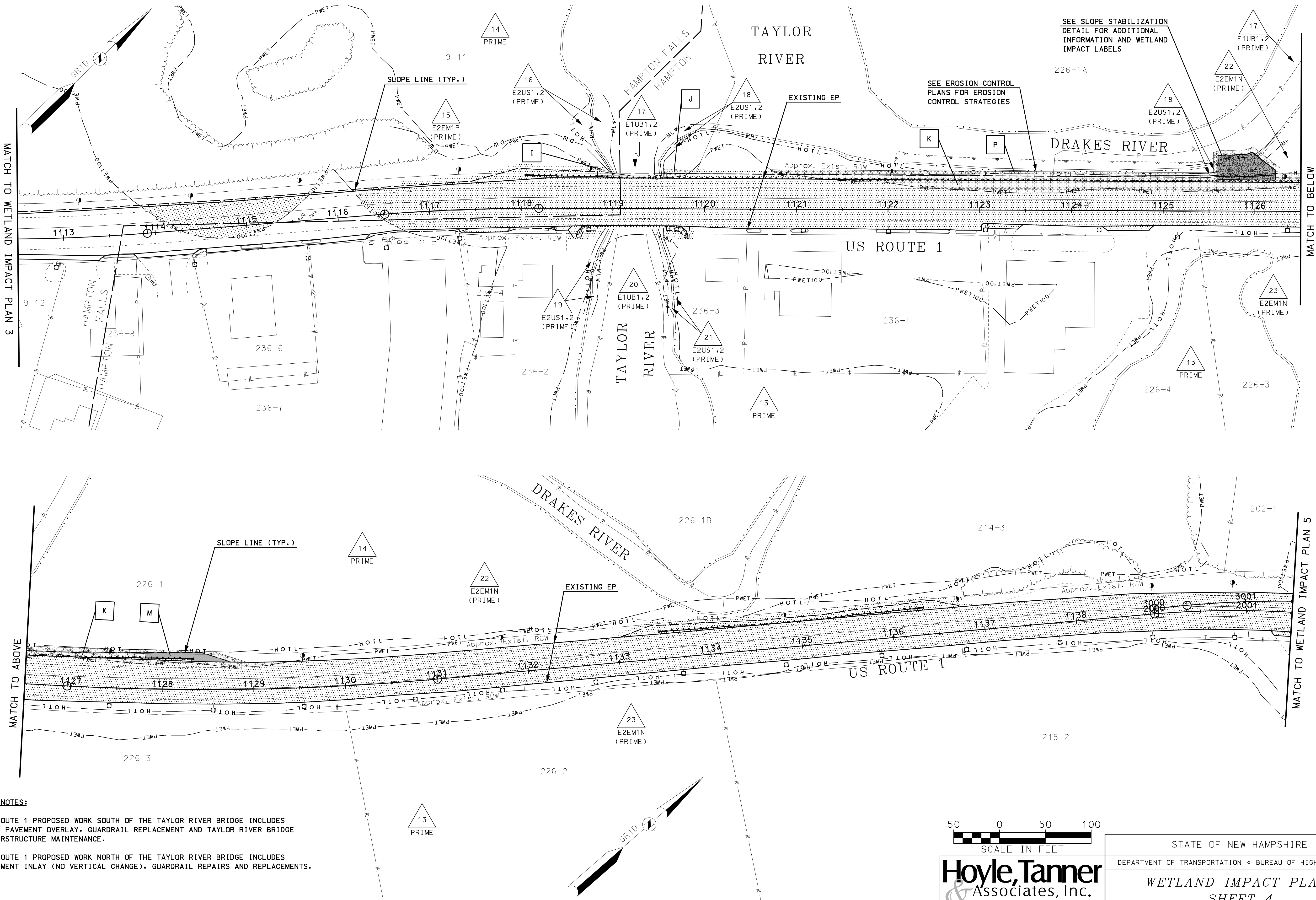
**Hoyle, Tanner**  
& Associates, Inc.

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
WETLAND IMPACT PLANS					
SHEET 3					
HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570-02	WET03	40424wetplans	40424	9	28

REVISIONS AFTER PROPOSAL		STATION		STATION		DATE		NUMBER		DATE	
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NEW DESIGN		KDP		2/2016		DATE		JMA		2/2016	
SHEET CHECKED		JMA		DATE		DATE		DATE		DATE	
AS BUILT DETAILS											

GENERAL NOTES:

- US ROUTE 1 PROPOSED WORK SOUTH OF THE TAYLOR RIVER BRIDGE INCLUDES 3/4" PAVEMENT OVERLAY, GUARDRAIL REPLACEMENT AND TAYLOR RIVER BRIDGE SUPERSTRUCTURE MAINTENANCE.
- US ROUTE 1 PROPOSED WORK NORTH OF THE TAYLOR RIVER BRIDGE INCLUDES PAVEMENT INLAY (NO VERTICAL CHANGE), GUARDRAIL REPAIRS AND REPLACEMENTS.

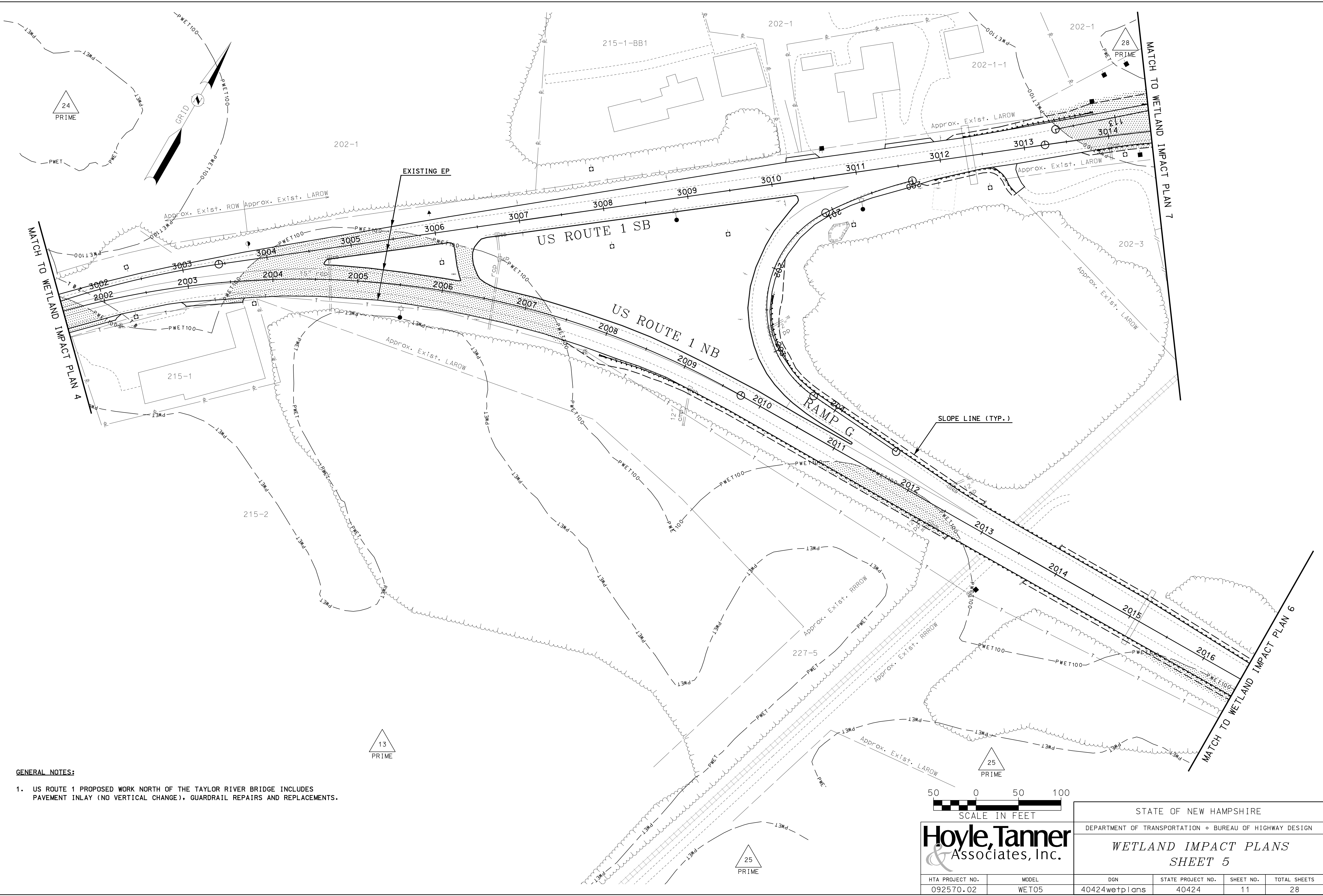


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HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570.02	WET04	40424wetplans	40424	10	28

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
WETLAND IMPACT PLANS					
SHEET 4					

REVISIONS AFTER PROPOSAL		STATION		STATION		DATE		NUMBER		DATE	
SDR PROCESSED		KDP		2/2016		DATE		KDP		2/2016	
NEW DESIGN		KDP		2/2016		DATE		JMA		2/2016	
SHEET CHECKED		JMA		DATE		DATE		AS BUILT DETAILS		DATE	



GENERAL NOTES:

1. US ROUTE 1 PROPOSED WORK NORTH OF THE TAYLOR RIVER BRIDGE INCLUDES PAVEMENT INLAY (NO VERTICAL CHANGE), GUARDRAIL REPAIRS AND REPLACEMENTS.

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SCALE IN FEET

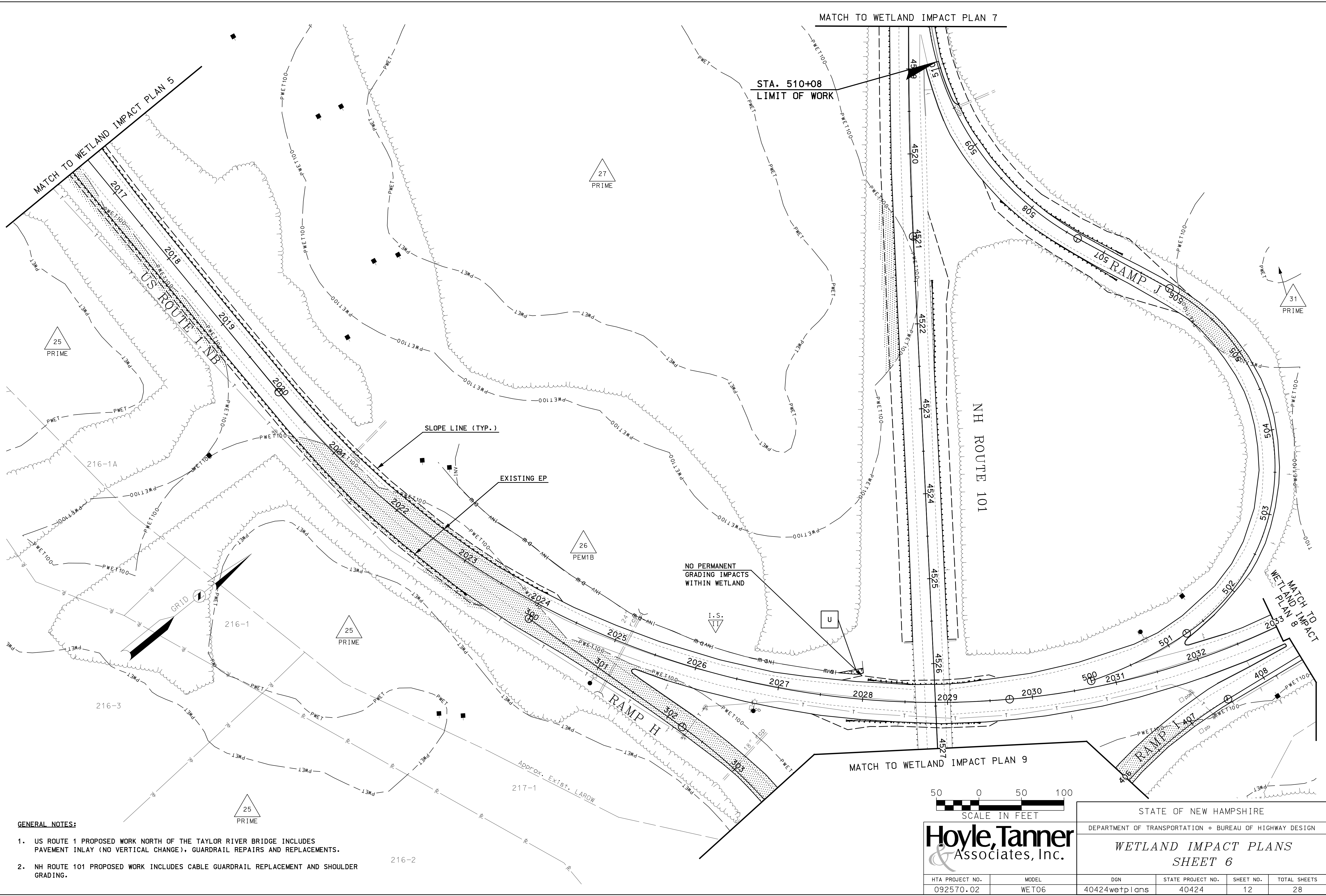
**Hoyle, Tanner & Associates, Inc.**

HTA PROJECT NO.	MODEL
092570.02	WET05

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
WETLAND IMPACT PLANS					
SHEET 5					
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS		
40424wetplans	40424	11	28		



REVISIONS AFTER PROPOSAL			DESCRIPTION		
NUMBER	DATE	STATION	STATION		
SDR PROCESSED	KDP	2/2016			
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AS BUILT DETAILS			DATE		

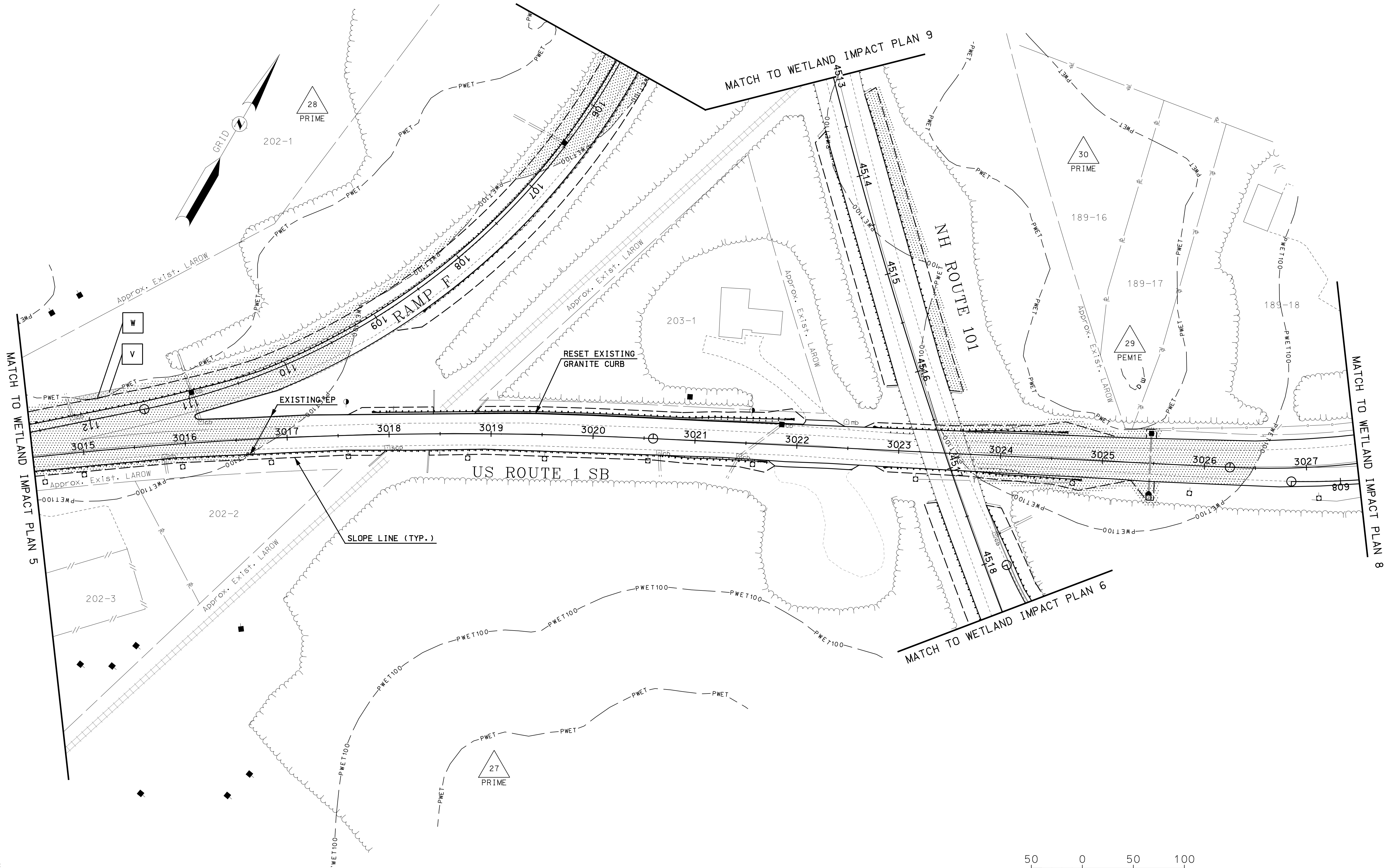


HTA PROJECT NO.		MODEL
092570.02		WET06

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
WETLAND IMPACT PLANS					
SHEET 6					
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS		
40424wetplans	40424	12	28		



REVISIONS AFTER PROPOSAL			DESCRIPTION		
NUMBER	DATE	STATION	STATION	STATION	DESCRIPTION
SDR PROCESSED	KDP	2/2016			
NEW DESIGN	KDP	2/2016			
SHEET CHECKED	JMA	2/2016			
AS BUILT DETAILS			DATE		



GENERAL NOTES:

- US ROUTE 1 PROPOSED WORK NORTH OF THE TAYLOR RIVER BRIDGE INCLUDES PAVEMENT INLAY (NO VERTICAL CHANGE), GUARDRAIL REPAIRS AND REPLACEMENTS.
- RAMP F PROPOSED WORK CONSISTS OF REMOVING AND REPLACING EXISTING PAVEMENT (NO VERTICAL CHANGE) AND REPLACING GUARDRAIL.
- NH ROUTE 101 PROPOSED WORK INCLUDES CABLE GUARDRAIL REPLACEMENT AND SHOULDER GRADING.

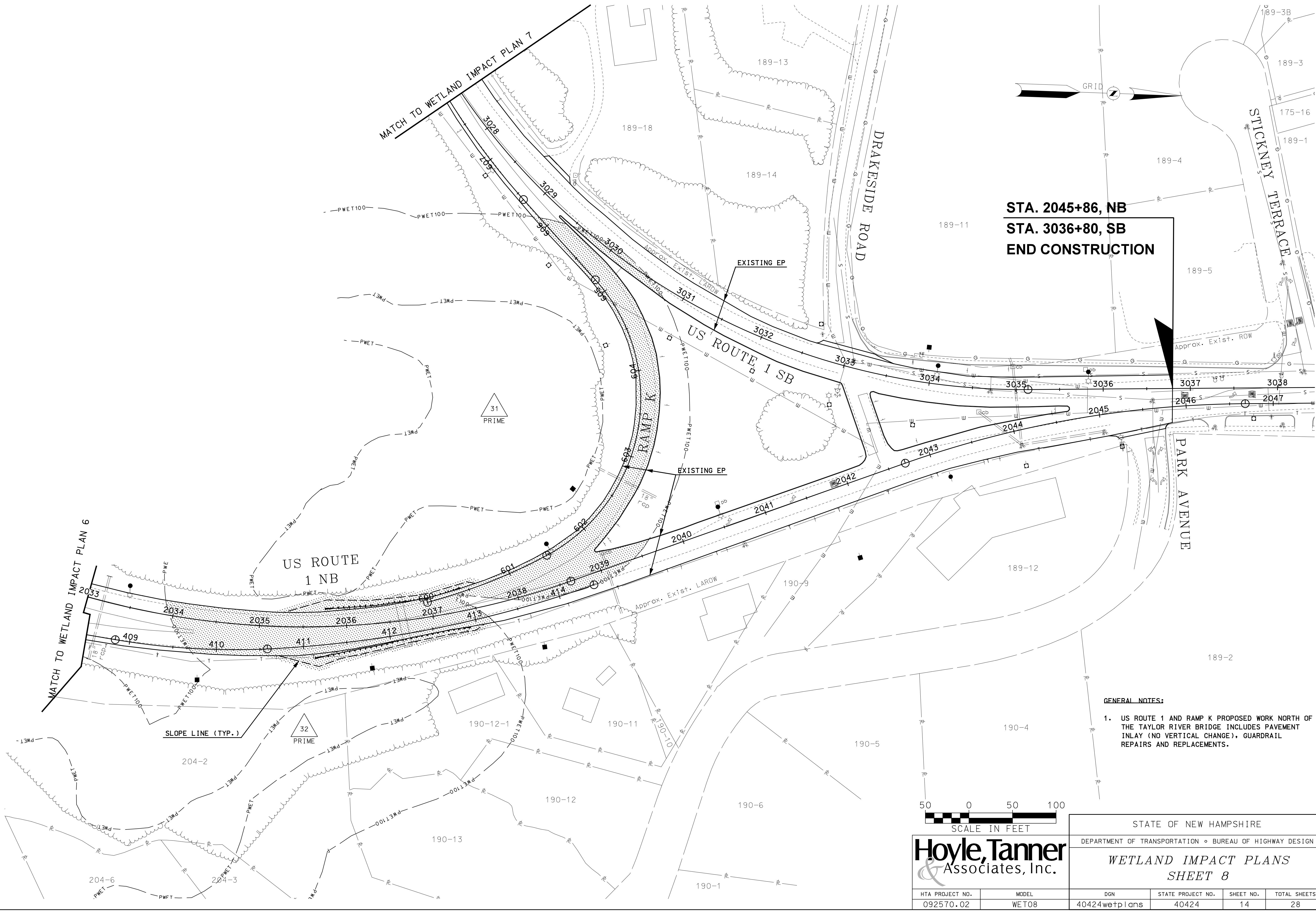


**Hoyle, Tanner & Associates, Inc.**

HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570.02	WET07	40424wetplans	40424	13	28

STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN  
**WETLAND IMPACT PLANS**  
**SHEET 7**

REVISIONS AFTER PROPOSAL			STATION			DESCRIPTION		
NUMBER	DATE	STATION	NUMBER	DATE	STATION	NUMBER	DATE	STATION
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AS BUILT DETAILS			DATE					

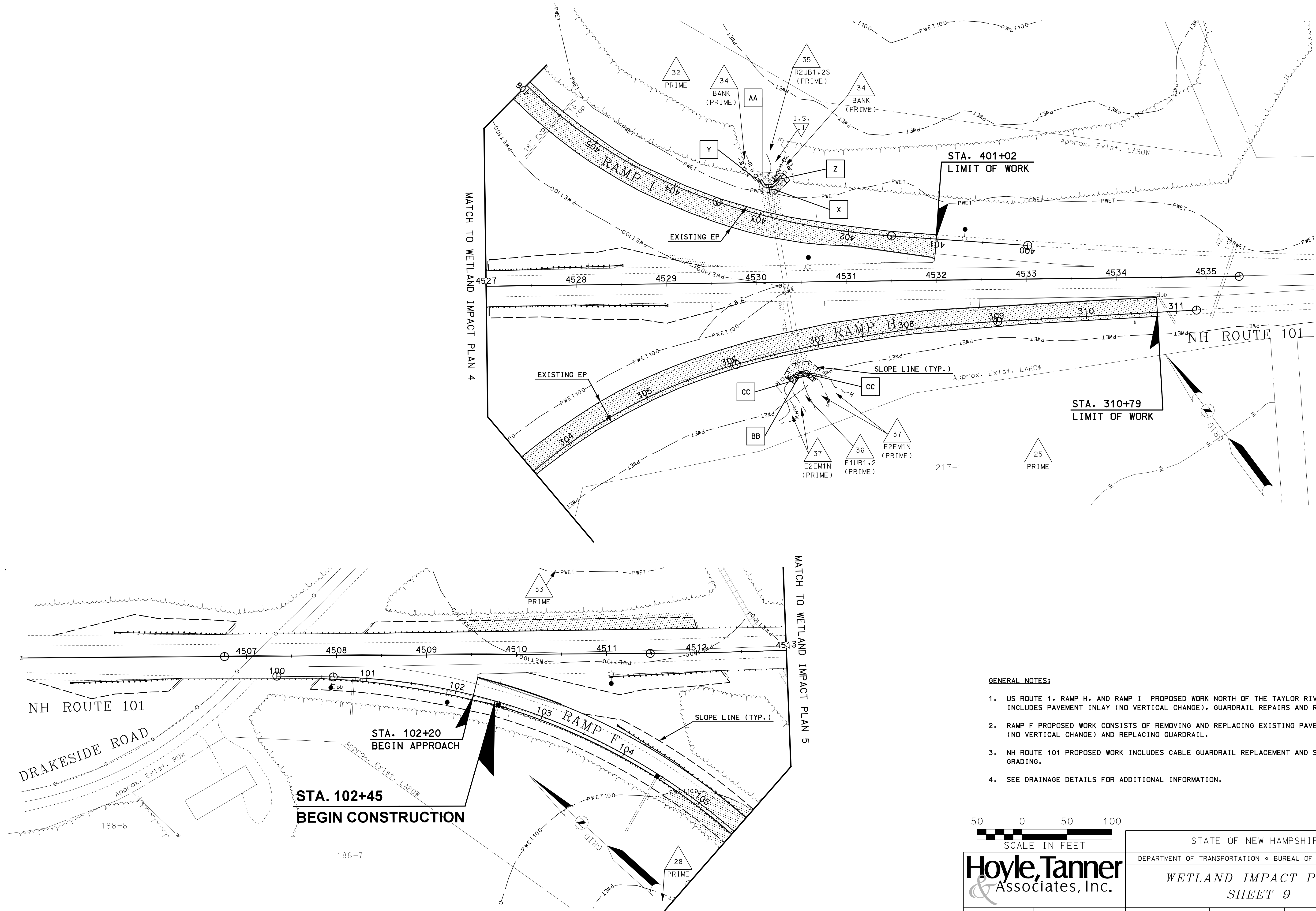


**Hoyle, Tanner & Associates, Inc.**

HTA PROJECT NO.	MODEL
092570.02	WET08

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
WETLAND IMPACT PLANS					
SHEET 8					
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS		
40424wetplans	40424	14	28		

REVISIONS AFTER PROPOSAL			STATION			DESCRIPTION		
NUMBER	DATE	STATION	NUMBER	DATE	STATION	NUMBER	DATE	STATION
SDR PROCESSED	KDP	2/2016	NEW DESIGN	KDP	2/2016	SHEET CHECKED	JMA	2/2016
AS BUILT DETAILS								



- GENERAL NOTES:
1. US ROUTE 1, RAMP H, AND RAMP I PROPOSED WORK NORTH OF THE TAYLOR RIVER BRIDGE INCLUDES PAVEMENT INLAY (NO VERTICAL CHANGE), GUARDRAIL REPAIRS AND REPLACEMENTS.
  2. RAMP F PROPOSED WORK CONSISTS OF REMOVING AND REPLACING EXISTING PAVEMENT (NO VERTICAL CHANGE) AND REPLACING GUARDRAIL.
  3. NH ROUTE 101 PROPOSED WORK INCLUDES CABLE GUARDRAIL REPLACEMENT AND SHOULDER GRADING.
  4. SEE DRAINAGE DETAILS FOR ADDITIONAL INFORMATION.



STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
WETLAND IMPACT PLANS					
SHEET 9					
HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570.02	WET09	40424wetplans	40424	15	28



EROSION CONTROL STRATEGIES

1. ENVIRONMENTAL COMMITMENTS:

1.1. THESE GUIDELINES DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH ANY CONTRACT PROVISIONS, OR APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

1.2. THIS PROJECT WILL BE SUBJECT TO THE US EPA’S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER CONSTRUCTION GENERAL PERMIT AS ADMINISTERED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THIS PROJECT IS SUBJECT TO REQUIREMENTS IN THE MOST RECENT CONSTRUCTION GENERAL PERMIT (CGP).

1.3. THE CONTRACTOR’S ATTENTION IS DIRECTED TO THE NHDES WETLAND PERMIT, THE US ARMY CORPS OF ENGINEERS PERMIT, WATER QUALITY CERTIFICATION AND THE SPECIAL ATTENTION ITEMS INCLUDED IN THE CONTRACT DOCUMENTS.

1.4. ALL STORM WATER, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION (DECEMBER 2008) (BMP MANUAL) AVAILABLE FROM THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES).

1.5. THE CONTRACTOR SHALL COMPLY WITH RSA 485-A:17, AND ALL, PUBLISHED NHDES ALTERATION OF TERRAIN ENV-WQ 1500 REQUIREMENTS (HTTP://DES.NH.GOV/ORGANIZATION/COMMISSIONER/LEGAL/RULES/INDEX.HTM)

1.6. THE CONTRACTOR IS DIRECTED TO REVIEW AND COMPLY WITH SECTION 107.1 OF THE CONTRACT AS IT REFERS TO SPILLAGE, AND ALSO WITH REGARDS TO EROSION, POLLUTION, AND TURBIDITY PRECAUTIONS.
2. STANDARD EROSION CONTROL SEQUENCING APPLICABLE TO ALL CONSTRUCTION PROJECTS:

2.1. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH DISTURBING ACTIVITIES. PERIMETER CONTROLS AND STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AS SHOWN IN THE BMP MANUAL AND AS DIRECTED BY THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARER.

2.2. EROSION, SEDIMENTATION CONTROL MEASURES AND INFILTRATION BASINS SHALL BE CLEANED, REPLACED AND AUGMENTED AS NECESSARY TO PREVENT SEDIMENTATION BEYOND PROJECT LIMITS THROUGHOUT THE PROJECT DURATION.

2.3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT AND SECTION 645 OF THE NHDOT SPECIFICATIONS FOR ROAD AND BRIDGES CONSTRUCTION.

2.4. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

(A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;

(B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;

(C) A MINIMUM OF 3” OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED;

(D) TEMPORARY SLOPE STABILIZATION CONFORMING TO TABLE 1 HAS BEEN PROPERLY INSTALLED

2.5. ALL STOCKPILES SHALL BE CONTAINED WITH A PERIMETER CONTROL. IF THE STOCKPILE IS TO REMAIN UNDISTURBED FOR MORE THAN 14 DAYS, MULCHING WILL BE REQUIRED.

2.6. A WATER TRUCK SHALL BE AVAILABLE TO CONTROL EXCESSIVE DUST AT THE DIRECTION OF THE CONTRACT ADMINISTRATOR.

2.7. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN UNTIL THE AREA HAS BEEN PERMANENTLY STABILIZED.

2.8. CONSTRUCTION PERFORMED ANY TIME BETWEEN NOVEMBER 30<sup>th</sup> AND MAY 1<sup>st</sup> OF ANY YEAR SHALL BE CONSIDERED WINTER CONSTRUCTION AND SHALL CONFORM TO THE FOLLOWING REQUIREMENTS.

(A) ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15<sup>th</sup>, OR WHICH ARE DISTURBED AFTER OCTOBER 15<sup>th</sup>, SHALL BE STABILIZED IN ACCORDANCE WITH TABLE 1.

(B) ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15<sup>th</sup>, OR WHICH ARE DISTURBED AFTER OCTOBER 15<sup>th</sup>, SHALL BE STABILIZED TEMPORARILY WITH STONE OR IN ACCORDANCE WITH TABLE 1.

(C) AFTER NOVEMBER 30<sup>th</sup> INCOMPLETE ROAD SURFACES, WHERE WORK HAS STOPPED FOR THE SEASON, SHALL BE PROTECTED IN ACCORDANCE WITH TABLE 1.

(D) WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE PROJECT IS WITHOUT STABILIZATION AT ONE TIME, UNLESS A WINTER CONSTRUCTION PLAN HAS BEEN APPROVED BY NHDOT THAT MEETS THE REQUIREMENTS OF ENV-WQ 1505.02 AND ENV-WQ 1505.05.

(E) A SWPPP AMENDMENT SHALL BE SUBMITTED TO THE DEPARTMENT, FOR APPROVAL, ADDRESSING COLD WEATHER STABILIZATION (ENV-WQ 1505.05) AND INCLUDING THE REQUIREMENTS OF NO LESS THAN 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK SCHEDULED AFTER NOVEMBER 30<sup>th</sup>.

GENERAL CONSTRUCTION PLANNING AND SELECTION OF STRATEGIES TO CONTROL EROSION AND SEDIMENT ON HIGHWAY CONSTRUCTION PROJECTS

3. PLAN ACTIVITIES TO ACCOUNT FOR SENSITIVE SITE CONDITIONS:

3.1. CLEARLY FLAG AREAS TO BE PROTECTED IN THE FIELD AND PROVIDE CONSTRUCTION BARRIERS TO PREVENT TRAFFICKING OUTSIDE OF WORK AREAS.

3.2. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS.

3.3. PROTECT AND MAXIMIZE EXISTING NATIVE VEGETATION AND NATURAL FOREST BUFFERS BETWEEN CONSTRUCTION ACTIVITY AND SENSITIVE AREAS.

3.4. WHEN WORK IS PERFORMED IN AND NEAR WATER COURSES, STREAM FLOW DIVERSION METHODS SHALL BE IMPLEMENTED PRIOR TO ANY EXCAVATION OR FILLING.

3.5. WHEN WORK IS PERFORMED WITHIN 50 FEET OF SURFACE WATERS (WETLAND, OPEN WATER OR FLOWING WATER), PERIMETER CONTROL SHALL BE ENHANCED CONSISTENT WITH SECTION 2.1.2.1. OF THE 2012 NPDES CONSTRUCTION GENERAL PERMIT.

4. MINIMIZE THE AMOUNT OF EXPOSED SOIL:

4.1. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS. MINIMIZE THE AREA OF EXPOSED SOIL AT ANY ONE TIME. PHASING SHALL BE USED TO REDUCE THE AMOUNT AND DURATION OF SOIL EXPOSED TO THE ELEMENTS AND VEHICLE TRACKING.

4.2. UTILIZE TEMPORARY MULCHING OR PROVIDE ALTERNATE TEMPORARY STABILIZATION ON EXPOSED SOILS IN ACCORDANCE WITH TABLE 1.

4.3. THE MAXIMUM AMOUNT OF DISTURBED EARTH SHALL NOT EXCEED A TOTAL OF 5 ACRES FROM MAY 1<sup>st</sup> THROUGH NOVEMBER 30<sup>th</sup>, OR EXCEED ONE ACRE DURING WINTER MONTHS, UNLESS THE CONTRACTOR DEMONSTRATES TO THE DEPARTMENT THAT THE ADDITIONAL AREA OF DISTURBANCE IS NECESSARY TO MEET THE CONTRACTORS CRITICAL PATH METHOD SCHEDULE (CPM), AND THE CONTRACTOR HAS ADEQUATE RESOURCES AVAILABLE TO ENSURE THAT ENVIRONMENTAL COMMITMENTS WILL BE MET.

5. CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT:

5.1. DIVERT OFF SITE RUNOFF OR CLEAN WATER AWAY FROM THE CONSTRUCTION ACTIVITY TO REDUCE THE VOLUME THAT NEEDS TO BE TREATED ON SITE.

5.2. DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM DISTURBED AREAS, SLOPES, AND AROUND ACTIVE WORK AREAS AND TO A STABILIZED OUTLET LOCATION.

5.3. CONSTRUCT IMPERMEABLE BARRIERS AS NECESSARY TO COLLECT OR DIVERT CONCENTRATED FLOWS FROM WORK OR DISTURBED AREAS.

5.4. STABILIZE, TO APPROPRIATE ANTICIPATED VELOCITIES, CONVEYANCE CHANNELS OR PUMPING SYSTEMS NEEDED TO CONVEY CONSTRUCTION STORMWATER TO BASINS AND DISCHARGE LOCATIONS PRIOR TO USE.

5.5. DIVERT OFF-SITE WATER THROUGH THE PROJECT IN AN APPROPRIATE MANNER SO NOT TO DISTURB THE UPSTREAM OR DOWNSTREAM SOILS, VEGETATION OR HYDROLOGY BEYOND THE PERMITTED AREA.

6. PROTECT SLOPES:

6.1. INTERCEPT AND DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM UNPROTECTED AND NEWLY ESTABLISHED AREAS AND SLOPES TO A STABILIZED OUTLET OR CONVEYANCE.

6.2. CONSIDER HOW GROUNDWATER SEEPAGE ON CUT SLOPES MAY IMPACT SLOPE STABILITY AND INCORPORATE APPROPRIATE MEASURES TO MINIMIZE EROSION.

6.3. CONVEY STORMWATER DOWN THE SLOPE IN A STABILIZED CHANNEL OR SLOPE DRAIN.

6.4. THE OUTER FACE OF THE FILL SLOPE SHOULD BE IN A LOOSE RUFFLED CONDITION PRIOR TO TURF ESTABLISHMENT. TOPSOIL OR HUMUS LAYERS SHALL BE TRACKED UP AND DOWN THE SLOPE, DISKED, HARROWED, DRAGGED WITH A CHAIN OR MAT, MACHINE-RAKED, OR HAND-WORKED TO PRODUCE A RUFFLED SURFACE.

7. ESTABLISH STABILIZED CONSTRUCTION EXITS:

7.1. INSTALL AND MAINTAIN CONSTRUCTION EXITS, ANYWHERE TRAFFIC LEAVES A CONSTRUCTION SITE ONTO A PUBLIC RIGHT-OF-WAY.

7.2. SWEEP ALL CONSTRUCTION RELATED DEBRIS AND SOIL FROM THE ADJACENT PAVED ROADWAYS AS NECESSARY.

8. PROTECT STORM DRAIN INLETS:

8.1. DIVERT SEDIMENT LADEN WATER AWAY FROM INLET STRUCTURES TO THE EXTENT POSSIBLE.

8.2. INSTALL SEDIMENT BARRIERS AND SEDIMENT TRAPS AT INLETS TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.

8.3. CLEAN CATCH BASINS, DRAINAGE PIPES, AND CULVERTS IF SIGNIFICANT SEDIMENT IS DEPOSITED.

8.4. DROP INLET SEDIMENT BARRIERS SHOULD NEVER BE USED AS THE PRIMARY MEANS OF SEDIMENT CONTROL AND SHOULD ONLY BE USED TO PROVIDE AN ADDITIONAL LEVEL OF PROTECTION TO STRUCTURES AND DOWN-GRADIENT SENSITIVE RECEPTORS.

9. SOIL STABILIZATION:

9.1. WITHIN THREE DAYS OF THE LAST ACTIVITY IN AN AREA, ALL EXPOSED SOIL AREAS, WHERE CONSTRUCTION ACTIVITIES ARE COMPLETE, SHALL BE STABILIZED.

9.2. IN ALL AREAS, TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED IN ACCORDANCE WITH THE STABILIZATION REQUIREMENTS (SECTION 2.2) OF THE 2012 CGP. (SEE TABLE 1 FOR GUIDANCE ON THE SELECTION OF TEMPORARY SOIL STABILIZATION MEASURES.)

9.3. EROSION CONTROL SEED MIX SHALL BE SOWN IN ALL INACTIVE CONSTRUCTION AREAS THAT WILL NOT BE PERMANENTLY SEEDED WITHIN TWO WEEKS OF DISTURBANCE AND PRIOR TO SEPTEMBER 15, OF ANY GIVEN YEAR, IN ORDER TO ACHIEVE VEGETATIVE STABILIZATION PRIOR TO THE END OF THE GROWING SEASON.

9.4. SOIL TACKIFIERS MAY BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER’S SPECIFICATIONS AND REAPPLIED AS NECESSARY TO MINIMIZE SOIL AND MULCH LOSS UNTIL PERMANENT VEGETATION IS ESTABLISHED.

10. RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES:

10.1. TEMPORARY SEDIMENT BASINS (CGP-SECTION 2.1.3.2) OR SEDIMENT TRAPS (ENV-WQ 1506.10) SHALL BE SIZED TO RETAIN, ON SITE, THE VOLUME OF A 2-YEAR 24-HOUR STORM EVENT FOR ANY AREA OF DISTURBANCE OR 3,600 CUBIC FEET OF STORMWATER RUNOFF PER ACRE OF DISTURBANCE, WHICHEVER IS GREATER. TEMPORARY SEDIMENT BASINS USED TO TREAT STORMWATER RUNOFF FROM AREAS GREATER THAN 5-ACRES OF DISTURBANCE SHALL BE SIZED TO ALSO CONTROL STORMWATER RUNOFF FROM A 10-YEAR 24 HOUR STORM EVENT. ON-SITE RETENTION OF THE 10-YEAR 24-HOUR EVENT IS NOT REQUIRED.

10.2. CONSTRUCT AND STABILIZE DEWATERING INFILTRATION BASINS PRIOR TO ANY EXCAVATION THAT MAY REQUIRE DEWATERING.

10.3. TEMPORARY SEDIMENT BASINS OR TRAPS SHALL BE PLACED AND STABILIZED AT LOCATIONS WHERE CONCENTRATED FLOW (CHANNELS AND PIPES) DISCHARGE TO THE SURROUNDING ENVIRONMENT FROM AREAS OF UNSTABILIZED EARTH DISTURBING ACTIVITIES.

11. ADDITIONAL EROSION AND SEDIMENT CONTROL GENERAL PRACTICES:

11.1. USE TEMPORARY MULCHING, PERMANENT MULCHING, TEMPORARY VEGETATIVE COVER, AND PERMANENT VEGETATIVE COVER TO REDUCE THE NEED FOR DUST CONTROL. USE MECHANICAL SWEEPERS ON PAVED SURFACES WHERE NECESSARY TO PREVENT DUST BUILDUP. APPLY WATER, OR OTHER DUST INHIBITING AGENTS OR TACKIFIERS, AS APPROVED BY THE NHDES.

11.2. ALL STOCKPILES SHALL BE CONTAINED WITH TEMPORARY PERIMETER CONTROLS. INACTIVE SOIL STOCKPILES SHOULD BE PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY EROSION CONTROL SEED MIX AND MULCH, SOIL BINDER) OR COVERED WITH ANCHORED TARPS.

11.3. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED IN ACCORDANCE WITH SECTION 645 OF NHDOT SPECIFICATIONS, WEEKLY AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.25 IN. OF RAIN PER 24-HOUR PERIOD. EROSION AND SEDIMENT CONTROL MEASURES WILL ALSO BE INSPECTED IN ACCORDANCE WITH THE GUIDANCE MEMO FROM THE NHDES CONTAINED WITHIN THE CONTRACT PROPOSAL AND THE EPA CONSTRUCTION GENERAL PERMIT.

11.4. THE CONTRACTOR SHOULD UTILIZE STORM DRAIN INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING A STORM DRAINAGE SYSTEM PRIOR TO THE PERMANENT STABILIZATION OF THE CONTRIBUTING DISTURBED AREA.

11.5. PERMANENT STABILIZATION MEASURES WILL BE CONSTRUCTED AND MAINTAINED IN LOCATIONS AS SHOWN ON THE CONSTRUCTION PLANS TO STABILIZE AREAS. VEGETATIVE STABILIZATION SHALL NOT BE CONSIDERED PERMANENTLY STABILIZED UNTIL VEGETATIVE GROWTH COVERS AT LEAST 85% OF THE DISTURBED AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL FOR ONE YEAR AFTER PROJECT COMPLETION.

11.6. CATCH BASINS: CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT ENTER ANY EXISTING CATCH BASINS DURING CONSTRUCTION. THE CONTRACTOR SHALL PLACE TEMPORARY STONE INLET PROTECTION OVER INLETS IN AREAS OF SOIL DISTURBANCE THAT ARE SUBJECT TO SEDIMENT CONTAMINATION.

11.7. TEMPORARY AND PERMANENT DITCHES SHALL BE CONSTRUCTED, STABILIZED AND MAINTAINED IN A MANNER THAT WILL MINIMIZE SCOUR. TEMPORARY AND PERMANENT DITCHES SHALL BE DIRECTED TO DRAIN TO SEDIMENT BASINS OR STORM WATER COLLECTION AREAS.

11.8. WINTER EXCAVATION AND EARTHWORK ACTIVITIES NEED TO BE LIMITED IN EXTENT AND DURATION, TO MINIMIZE POTENTIAL EROSION AND SEDIMENTATION IMPACTS. THE AREA OF EXPOSED SOIL SHALL BE LIMITED TO ONE ACRE, OR THAT WHICH CAN BE STABILIZED AT THE END OF EACH DAY UNLESS A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY THE DEPARTMENT.

11.9. CHANNEL PROTECTION MEASURES SHALL BE SUPPLEMENTED WITH PERIMETER CONTROL MEASURES WHEN THE DITCH LINES OCCUR AT THE BOTTOM OF LONG FILL SLOPES. THE PERIMETER CONTROLS SHALL BE INSTALLED ON THE FILL SLOPE TO MINIMIZE THE POTENTIAL FOR FILL SLOPE SEDIMENT DEPOSITS IN THE DITCH LINE.

BEST MANAGEMENT PRACTICES (BMP) BASED ON AMOUNT OF OPEN CONSTRUCTION AREA

12. STRATEGIES SPECIFIC TO OPEN AREAS LESS THAN 5 ACRES:

12.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500; ALTERATION OF TERRAIN FOR CONSTRUCTION AND USE ALL CONVENTIONAL BMP STRATEGIES.

12.2. SLOPES STEEPER THAN 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING.

12.3. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT ALONE.

12.4. AREAS WHERE HAUL ROADS ARE CONSTRUCTED AND STORMWATER CANNOT BE TREATED THE DEPARTMENT WILL CONSIDER INFILTRATION.

12.5. FOR HAUL ROADS ADJACENT TO SENSITIVE ENVIRONMENTAL AREAS OR STEEPER THAN 5%, THE DEPARTMENT WILL CONSIDER USING EROSION STONE, CRUSHED GRAVEL, OR CRUSHED STONE BASE TO HELP MINIMIZE EROSION ISSUES.

12.6. ALL AREAS THAT CAN BE STABILIZED SHALL BE STABILIZED PRIOR TO OPENING UP NEW TERRITORY.

12.7. DETENTION BASINS SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE A 2 YEAR STORM EVENT.
13. STRATEGIES SPECIFIC TO OPEN AREAS BETWEEN 5 AND 10 ACRES:

13.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES WILL BE UTILIZED.

13.2. DETENTION BASINS WILL BE CONSTRUCTED TO ACCOMMODATE THE 2-YEAR 24-HOUR STORM EVENT AND CONTROL A 10-YEAR 24-HOUR STORM EVENT.

13.3. SLOPES STEEPER THAN A 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS. OTHER ALTERNATIVE MEASURES, SUCH AS BONDED FIBER MATRICES (BFMS) OR FLEXIBLE GROWTH MEDIUMS (FGMS) MAY BE UTILIZED, IF MEETING THE NHDES APPROVALS AND REGULATIONS.

13.4. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS.
14. STRATEGIES SPECIFIC TO OPEN AREAS OVER 10 ACRES:

14.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES AND BETWEEN 5 AND 10 ACRES WILL BE UTILIZED.

14.2. THE DEPARTMENT ANTICIPATES THAT SOIL BINDERS WILL BE NEEDED ON ALL SLOPES STEEPER THAN 3:1, IN ORDER TO MINIMIZE EROSION AND REDUCE THE AMOUNT OF SEDIMENT IN THE STORMWATER TREATMENT BASINS.

14.3. THE CONTRACTOR WILL BE REQUIRED TO HAVE AN APPROVED DESIGN IN ACCORDANCE WITH ENV-WQ 1506.12 FOR AN ACTIVE FLOCCULANT TREATMENT SYSTEM TO TREAT AND RELEASE WATER CAPTURED IN STORM WATER BASINS. THE CONTRACTOR SHALL ALSO RETAIN THE SERVICES OF AN ENVIRONMENTAL CONSULTANT WHO HAS DEMONSTRATED EXPERIENCE IN THE DESIGN OF FLOCCULANT TREATMENT SYSTEMS. THE CONSULTANT WILL ALSO BE RESPONSIBLE FOR THE IMPLEMENTATION AND MONITORING OF THE SYSTEM.

TABLE 1  
GUIDANCE ON SELECTING TEMPORARY SOIL STABILIZATION MEASURES

APPLICATION AREAS	DRY MULCH METHODS				HYDRAULICALLY APPLIED MULCHES <sup>2</sup>				ROLLED EROSION CONTROL BLANKETS <sup>3</sup>			
	HMT	WC	SG	CB	HM	SMM	BFM	FRM	SNSB	DNSB	DNSCB	DNCB
SLOPES <sup>1</sup>												
STEEPER THAN 2:1	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES
2:1 SLOPE	YES <sup>1</sup>	YES <sup>1</sup>	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES
3:1 SLOPE	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO
4:1 SLOPE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
WINTER STABILIZATION	4T/AC	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES	YES
CHANNELS												
LOW FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
HIGH FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE
HMT	HAY MULCH & TACK	HM	HYDRAULIC MULCH	SNSB	SINGLE NET STRAW BLANKET
WC	WOOD CHIPS	SMM	STABILIZED MULCH MATRIX	DNSB	DOUBLE NET STRAW BLANKET
SG	STUMP GRINDINGS	BFM	BONDED FIBER MATRIX	DNSCB	2 NET STRAW-COCONUT BLANKET
CB	COMPOST BLANKET	FRM	FIBER REINFORCED MEDIUM	DNCB	2 NET COCONUT BLANKET

- NOTES:
1. ALL SLOPE STABILIZATION OPTIONS ASSUME A SLOPE LENGTH ≤10 TIMES THE HORIZONTAL DISTANCE COMPONENT OF THE SLOPE, IN FEET.
2. PRODUCTS CONTAINING POLYACRYLAMIDE (PAM) SHALL NOT BE APPLIED DIRECTLY TO OR WITHIN 100 FEET OF ANY SURFACE WATER WITHOUT PRIOR WRITTEN APPROVAL FROM THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES.
3. ALL EROSION CONTROL BLANKETS SHALL BE MADE WITH WILDLIFE FRIENDLY BIODEGRADABLE NETTING.

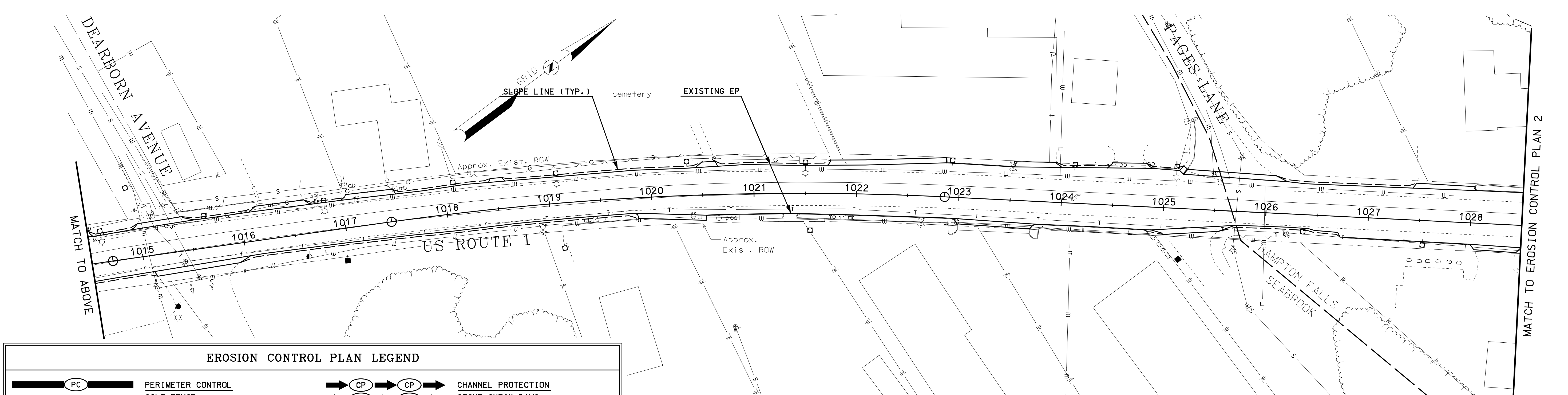
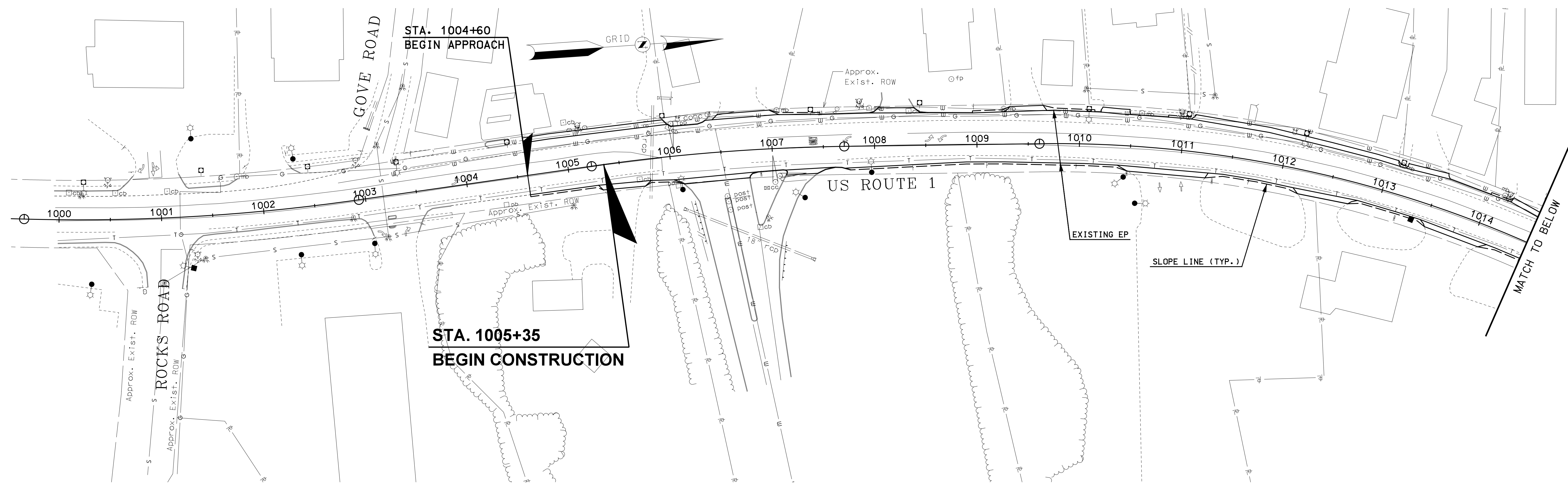
STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
EROSION CONTROL STRATEGIES				
REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
12-21-2015	40424wetplans	40424	16	28







REVISIONS AFTER PROPOSAL		STATION		DATE		NUMBER		DATE		NUMBER		DATE	
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AS BUILT DETAILS		DATE		DATE		DATE		DATE		DATE		DATE	



**EROSION CONTROL PLAN LEGEND**

	<b>PERIMETER CONTROL</b> SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
	<b>NATURAL BUFFER/PERIMETER CONTROL</b> SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
	<b>CHANNEL PROTECTION</b> STONE CHECK DAMS STRAW WATTLES CHANNEL MATTING CLASS D EROSION STONE CLASS C STONE
	<b>CLEAN WATER BYPASS</b> PUMP THROUGH PIPE DRAIN THROUGH PIPE OR CHANNEL

**GENERAL NOTES:**  
1. DETAIL ON THIS PLAN WAS DERIVED FROM AS-BUILT PLANS (1962) AND AERIAL PHOTOGRAPHY WHICH MAY NOT BE REPRESENTATIVE OF CURRENT CONDITIONS. THESE PLANS SHOULD BE USED FOR INFORMATION PURPOSES ONLY.



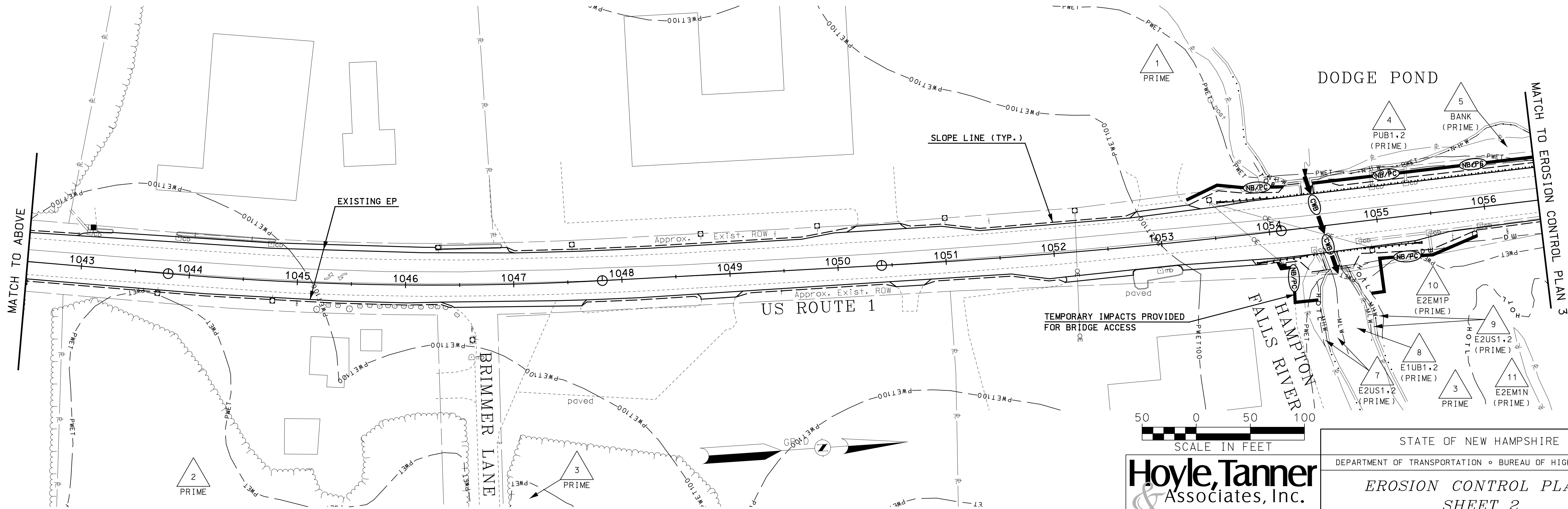
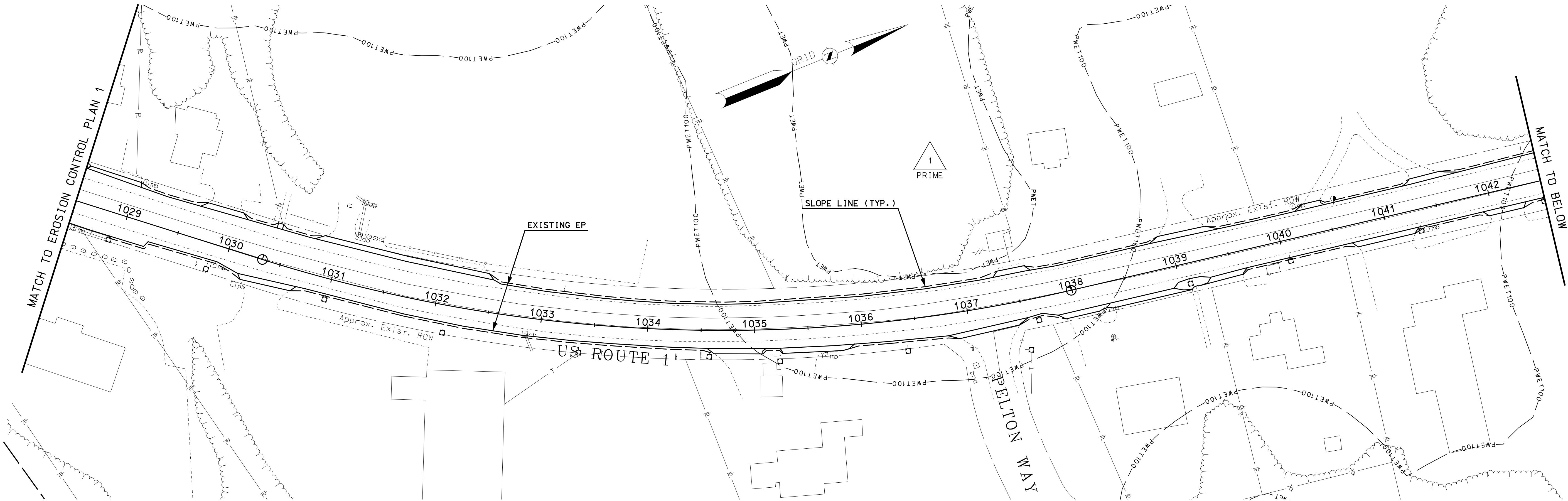
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HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
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STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

**EROSION CONTROL PLANS  
SHEET 1**

REVISIONS AFTER PROPOSAL				STATION		DESCRIPTION	
NUMBER	DATE	STATION	DESCRIPTION				
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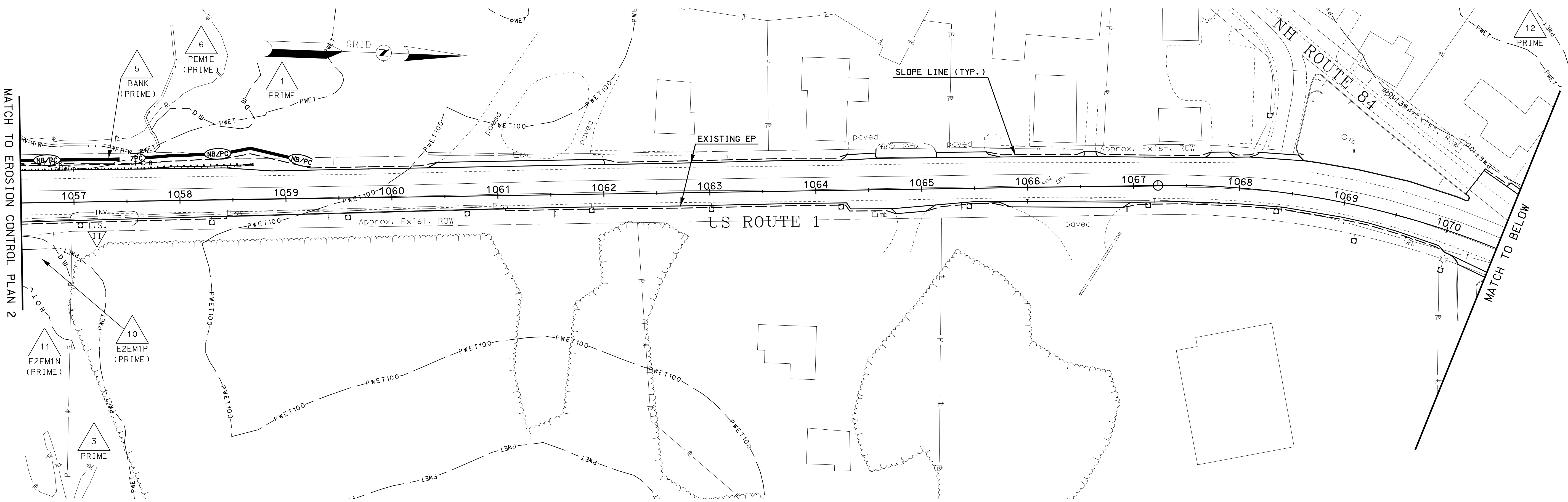
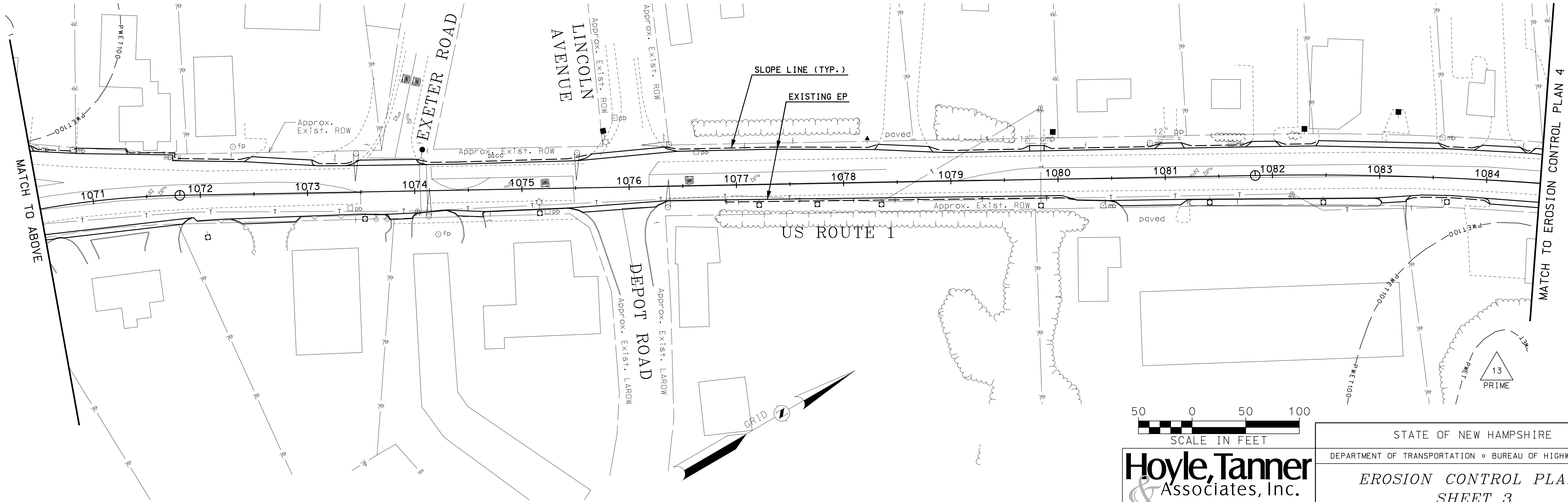
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STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
EROSION CONTROL PLANS					
SHEET 2					
HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
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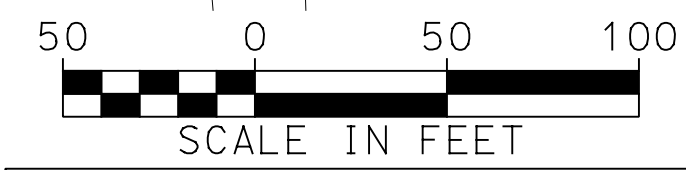
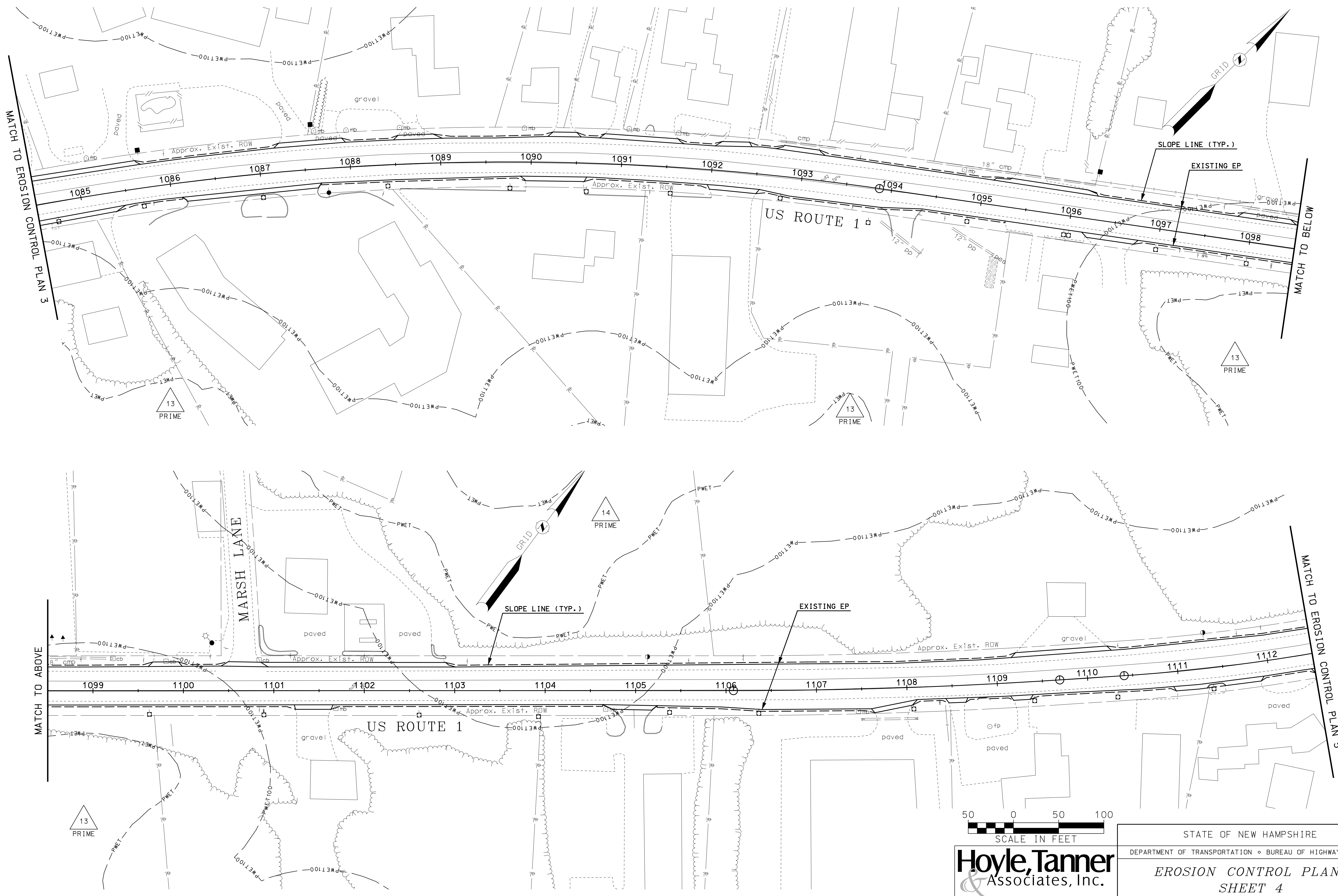
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SHEET CHECKED				JMA		2/2016									
AS BUILT DETAILS						DATE									



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<b>EROSION CONTROL PLANS</b>					
<b>SHEET 3</b>					
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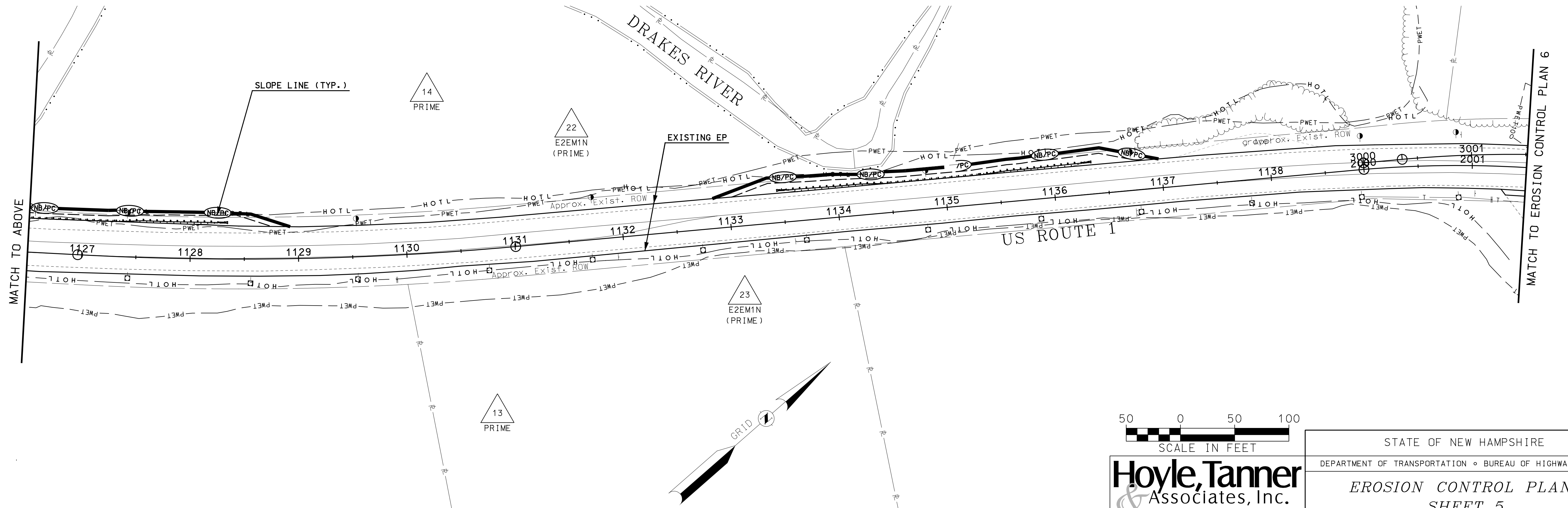
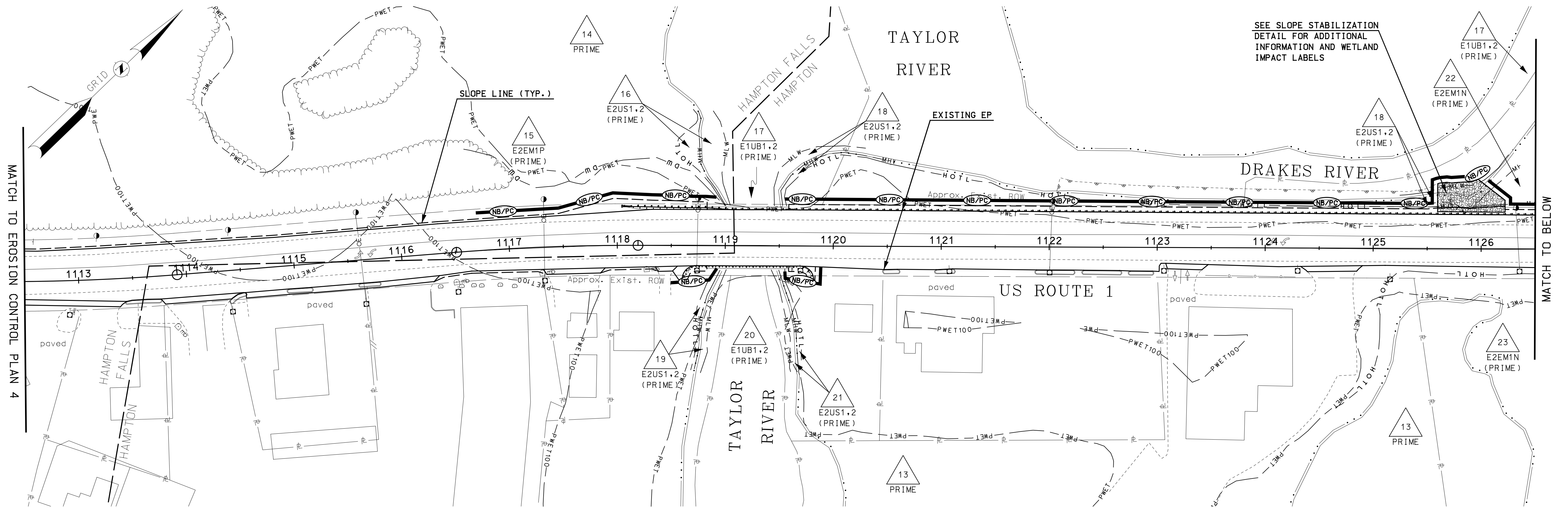
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AS BUILT DETAILS			DATE					



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STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
EROSION CONTROL PLANS					
SHEET 4					
HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570-02	ERO04	40424eroplans	40424	22	28

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		DATE					

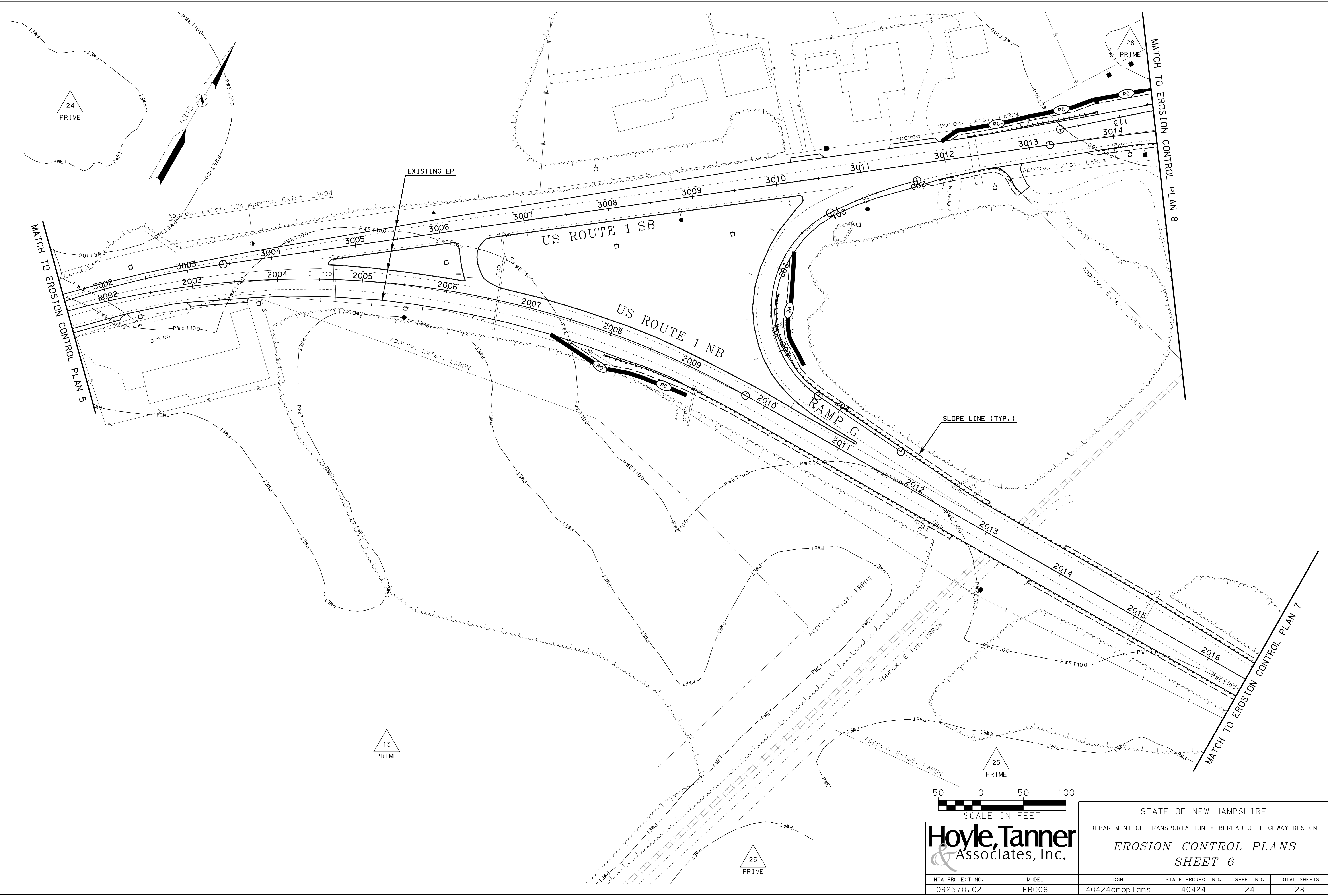


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HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
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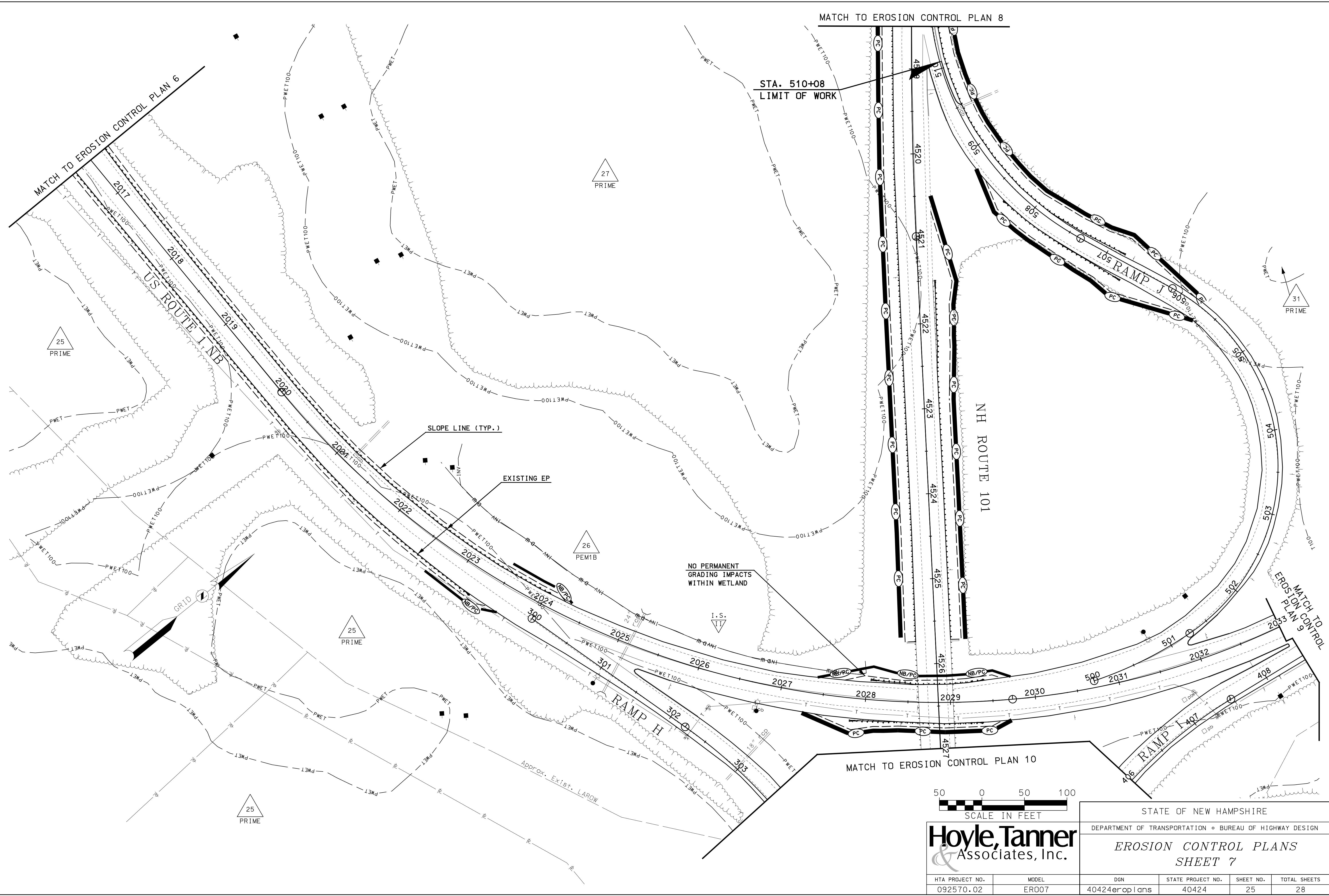
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STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
EROSION CONTROL PLANS					
SHEET 6					
HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570.02	ER006	40424eroplans	40424	24	28



REVISIONS AFTER PROPOSAL			DESCRIPTION		
NUMBER	DATE	STATION	STATION	STATION	DESCRIPTION
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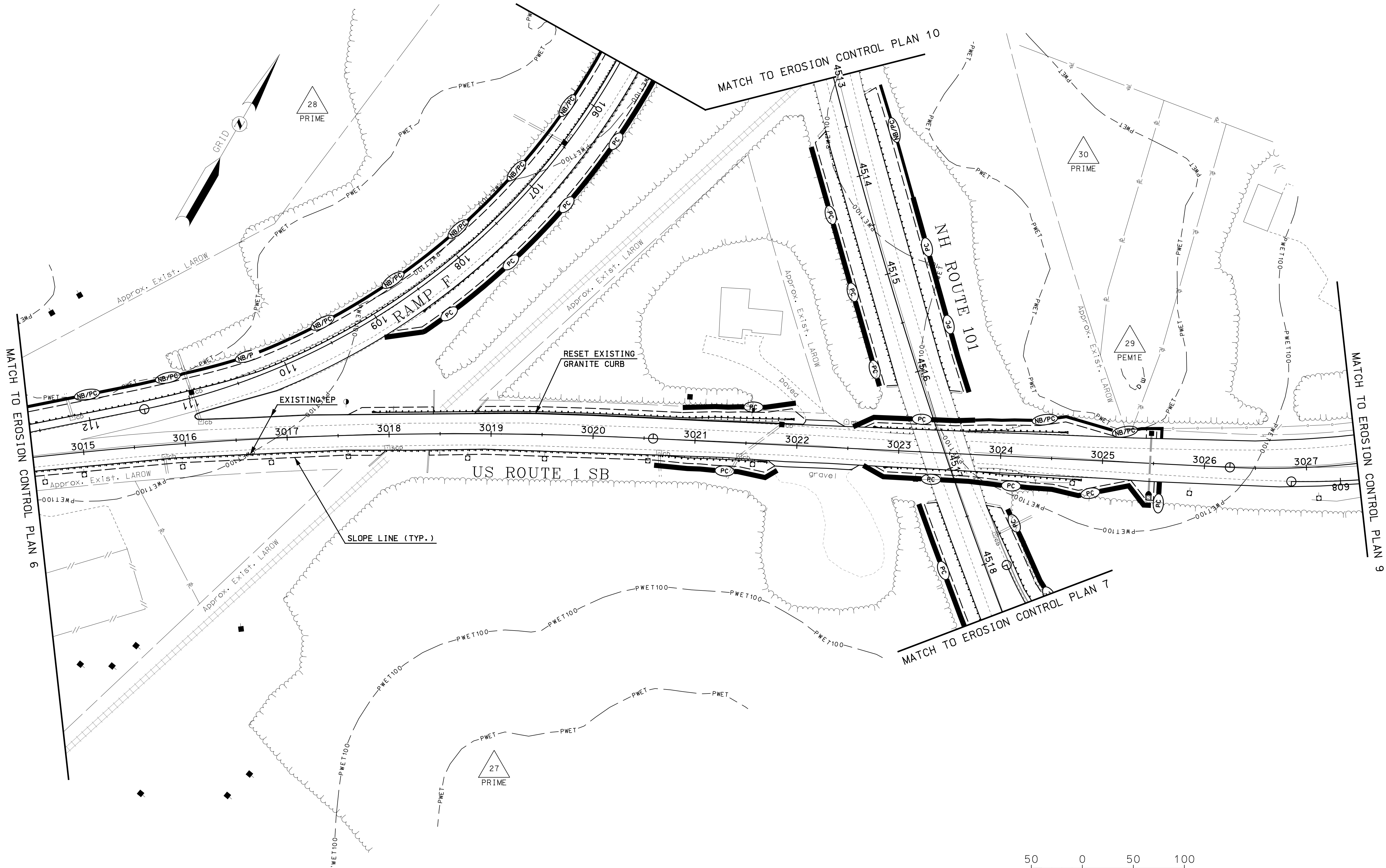
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STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
EROSION CONTROL PLANS					
SHEET 7					
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS		
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NUMBER	DATE	STATION	STATION	STATION	DESCRIPTION
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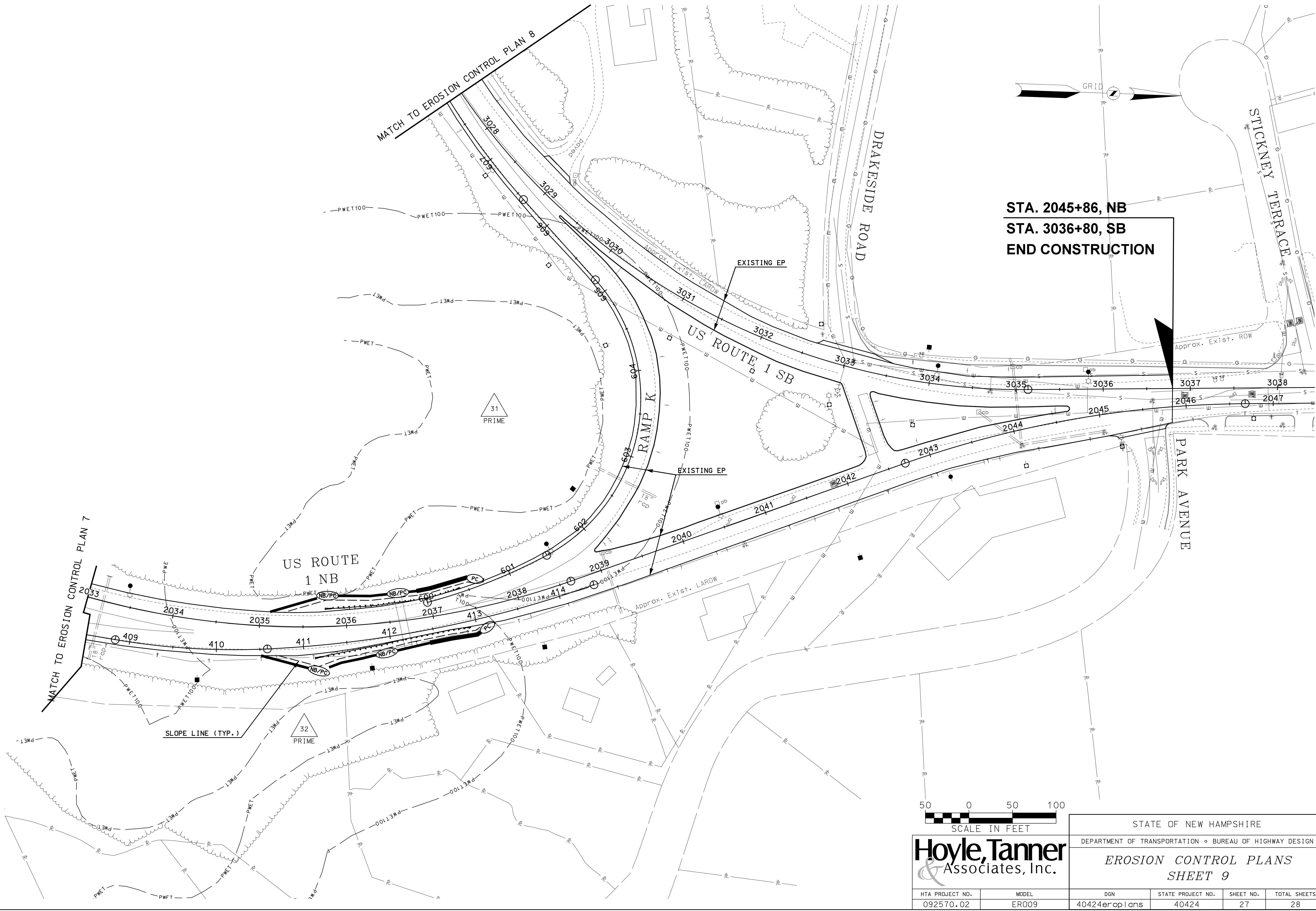
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STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
EROSION CONTROL PLANS					
SHEET 8					

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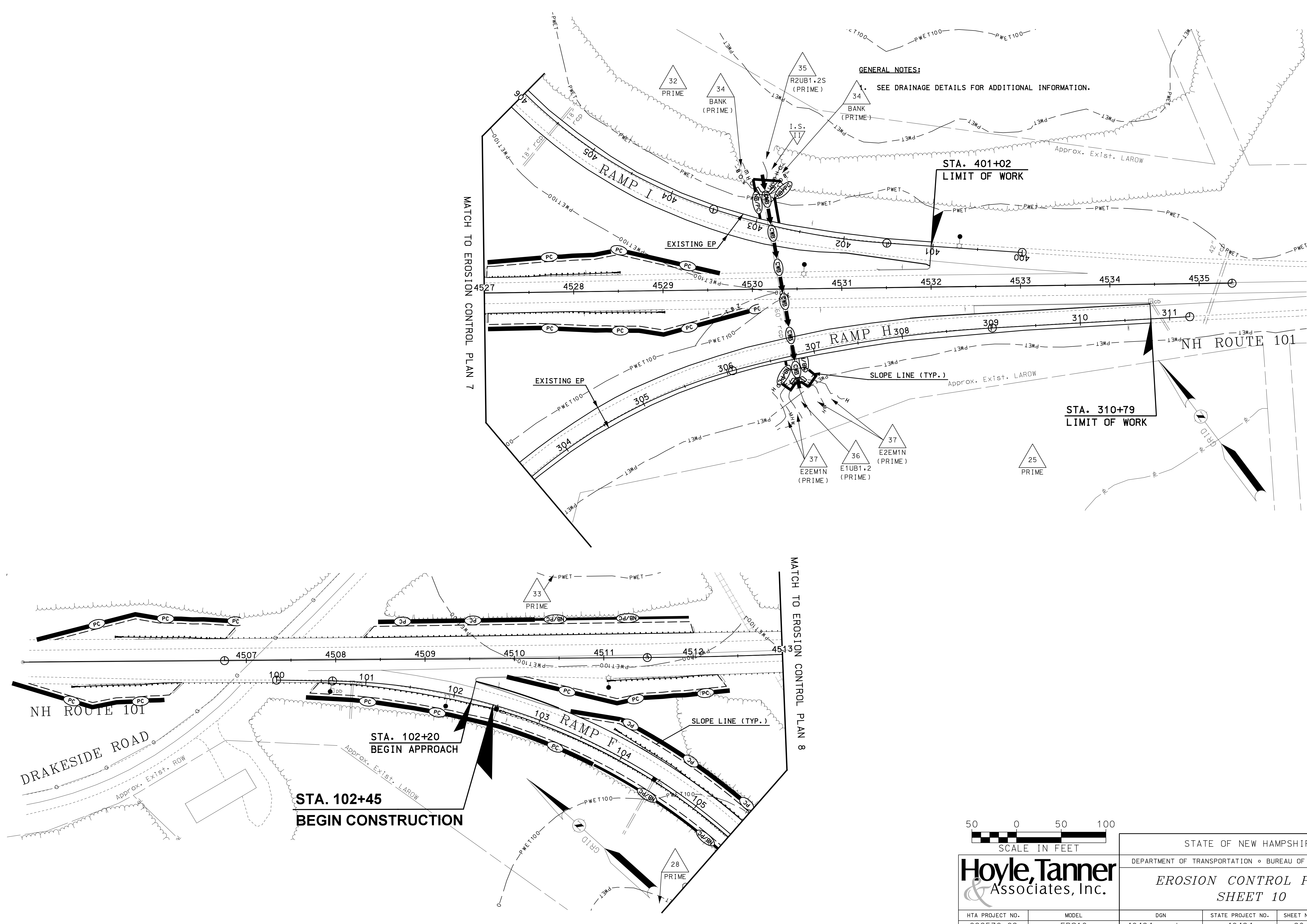
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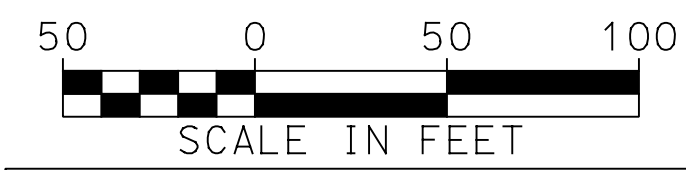
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DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN					
EROSION CONTROL PLANS					
SHEET 9					
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS		
40424eroplans	40424	27	28		



REVISIONS AFTER PROPOSAL		STATION		DATE		NUMBER		DATE	
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SHEET CHECKED		JMA		2/2016					
AS BUILT DETAILS				DATE					



GENERAL NOTES:  
SEE DRAINAGE DETAILS FOR ADDITIONAL INFORMATION.



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<b>EROSION CONTROL PLANS</b>					
<b>SHEET 10</b>					
HTA PROJECT NO.	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
092570.02	ER010	40424eroplans	40424	28	28